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A person-centered model of healthcare is considered the gold standard of care; however, athletic training continues to operate within a biomedical model of care. More research is needed to understand how to best incorporate person-centered care into the culture of care within athletic training. This study evaluated the effectiveness of a four-part learning module on athletic training students' understanding, use and perceived use of person-centered care in athletic training. The learning module was incorporated into an existing course on psychosocial aspects of healthcare. Ten students (9 female, 1 male) participated in the study. Study measures included a clinical evaluation observation measuring participants' use of person-centered care in a clinical setting and a pre-post survey measuring participants' perceived use of person-centered care in a clinical setting. Results of the paired t-tests on the clinical evaluation observation and pre-post survey items demonstrated a significant improvement in participants' perceived use of PCC in their clinical practice. Findings indicate that actively incorporating person-centered care into the curriculum of athletic training education can have a significant positive impact on students' use and perceived use of person-centered care in their clinical practice. More research is needed to explore other educational methods for incorporating person-centered care across the athletic training educational curriculum as well as the impact of a person-centered culture of care on patients and clinical outcomes in athletic training settings.

DEVELOPING A CURRICULUM OF PERSON-CENTERED
CARE IN ATHLETIC TRAINING

by

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APPROVAL PAGE

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CHAPTER I

PROJECT OVERVIEW

Person-centered care (PCC) is considered the gold standard in healthcare (Scholl, Zill, Harter & Dirmaier, 2014; Sidani & Fox, 2014; Cheng et al., 2016). A person-centered model of care treats injury or illness within the context of the person receiving care. This focus on the patient as a person marks a shift in how healthcare views and treats patients. Healthcare and healthcare education has largely focused on a biomedical approach to care. The biomedical model of care focuses on the injury or illness and treating the pathology. Within this model, the healthcare provider makes all decisions related to care and treatment. In a person-centered approach, the patient and healthcare provider work together to determine the best plan of care for the individual patient.

Much of the healthcare research looks at “patient-centered care,” which focuses on the patient as the recipient of care (Ben Natan & Hochman, 2017). Patient centered care is generally visit-based, focuses on communication and views instances of injury and illness as distinct from one another (Starfield, 2011; Zhao, Gao, Wang, Liu & Hao, 2016). “Person-centered care” takes a wider perspective, looking at the injury or illness within the context of the patient, assessing the social, emotional, psychological, physical and environmental factors affecting the person. A person-centered approach looks at the patient over time, develops a therapeutic alliance between the patient and provider, views injuries and illness as interrelated, and coordinating continuity of care (Starfield,

2011; Zhao, Gao, Wang, Liu & Hao, 2016). Patient-centered care is one of six goals for quality care set forth by the Institute of Medicine (IOM) and “encompasses qualities of compassion, empathy, and responsiveness to the needs, values, and expressed preferences of the individual patient (p. 48, IOM, 2001).” The goal of PCC is to provide comprehensive, compassionate and empathetic care that is both responsive to the individual patient and empowers the patient to be an active member in the decision making and care process (Rathert, Wyrich & Boren, 2012). Dimensions of person-centered care include emotional support, being respectful, providing relevant information, communication, continuity and coordination of care and involving both the patient and family in the care process (Ben Natan & Hochman, 2017).

The athletic training literature refers to PCC as something that should be a part of athletic training care, but there is very little literature on implementing PCC in professional practice (Laursen, 2010; Parsons, 2009). Much of the athletic training literature related to person-centered care focuses on the adoption of a disablement model (Parsons, Valovich, Snyder & Sauers, 2008; Snyder, Parsons, Valovich, Bay, Michener & Sauers, 2008). The National Athletic Trainers’ Association (NATA) adopted the World Health Organization’s (WHO) International Classification of Functioning, Disability and Health (ICF) disablement model (NATA, 2012), a component of which is looking beyond a patient’s physical health and appreciating how a patient is functioning in all aspects of life with their injury or illness. Understanding all of a patient’s needs and how they affect overall functioning is the essence of PCC.

In theory, PCC in athletic training should look like PCC in any other setting (Parsons, 2009); however, there are unique challenges to implementation of PCC in athletic training settings (Laursen, 2010; Parsons, 2009). Despite these challenges, potential advantages of PCC not only include an enhanced work environment for the athletic trainer, but also improved resources for care, improved communication and collaboration between athletic trainers, their patients and other healthcare professionals, and improved staff development for providing the highest level of care (Laursen, 2010). Implementation of PCC can also lead to improved communication between patients and healthcare providers and improved quality of care (Ben Natan & Hochman, 2017).

Purpose Statement

The purpose of this study is to evaluate the effectiveness of a four-part learning module on athletic training students understanding and use of person-centered care in athletic training. Research questions are as follows:

1. How does the learning module affect athletic training students' understanding and perceived use of person-centered care in athletic training settings?
2. How does the learning module affect athletic training students' use of person-centered care in their clinical education settings?

Methods

A four-part learning module on person-centered care (PCC) was incorporated into an existing athletic training course. Survey and observational measures of students' understanding, perceived use and use of PCC were taken before and after the module.

Participants

Participants in the study were recruited from a private, southeastern Commission on Accreditation for Athletic Training Education (CAATE) accredited athletic training program. Participants were selected from a psychosocial aspects of healthcare course taught by the primary instructor. All students enrolled in the course were required to complete course work as part of their semester grade, however, participation in the study was voluntary. Students who chose to participate were offered extra credit for their participation while a separate extra credit opportunity of equal work and value was offered to those who did not wish to participate. All 11 students (9 female, 2 male) enrolled in the course agreed to participate in the study. Each participant completed an informed consent form prior to beginning the study. Students in this course had completed over 150 hours of clinical education, completed a course on lower extremity evaluation and were at the time of the study enrolled in a course on upper extremity evaluation.

Measurements

Survey. A survey to assess participants' perceived use of PCC was adapted from Sidani et.al.'s (2014) measure of healthcare providers' implementation of PCC. The survey asked participants to rate their perceived use of PCC within three categories: holistic care, collaborative care and responsive care. Prior to the study, the survey was given to five certified athletic trainers and two kinesiology professionals for input on ease of understanding, wording and ability to rate each category. Based on feedback, the categories used in the original measure were retained but wording and content was

modified to better represent an athletic training role of care. The final survey consisted of three sections (holistic care, 11 questions; collaborative care, 13 questions; and responsive care, 11 questions) in which participants rated statements on a 5-point scale from never to always (Appendix A). Participants were also asked to answer two short answer questions before the study and six short answer questions following the study (Appendix H). The first two questions were the same on the pre- and post-survey, assessing participant's understanding of PCC and what it looks like in clinical practice. The final four questions were asked as part of the post-survey, assessing participant's evaluation of the learning module and suggestions for improving the learning module.

Clinical evaluation observation. An observation assessment was developed to assess participants' use of PCC in a clinical evaluation. The measure was adapted from Sidani et.al.'s (2014) measure of healthcare providers' implementation of PCC. Participants were marked yes or no as to whether or not they incorporated specific aspects of PCC into their clinical evaluation. The assessment was divided into three sections: holistic care with 9 items (e.g., asks about social functioning), collaborative care with 6 items (e.g., involves patient in decision making) and responsive care with 6 items (e.g., provides flexible, personalized care) (Appendix B).

Participants were observed performing a clinical evaluation on a model patient prior to beginning the study. Model patients were recruited from the university's athletic department. Athletes were asked to serve as a model if they had a current lower extremity athletic injury that was two weeks or more post-injury and no surgical intervention associated with the current injury. Model patients were instructed to: present their injuries

as they currently existed and to answer all questions from the participants openly and honestly, be themselves and make comments or ask questions as they thought appropriate. The goal of the observation was to create a realistic healthcare scenario that each participant was likely to face within their clinical practice. Participants were paired with model patients who were available during their scheduled observation assessment, and each evaluation was conducted in an athletic training facility where participants were assigned for their clinical education.

Participants were instructed to conduct a clinical evaluation to the best of their ability. They were told to act as if they were meeting the model for the first time and were instructed to imagine that they were serving as the model's primary athletic trainer and it was their sole responsibility to evaluate and treat the model. Participants were asked to complete a full evaluation using a SOAP (Subjective, Objective, Assessment, Plan) note format and present the model with an assessment and general plan of treatment. Each participant was evaluated using the observation assessment.

Procedures

Pilot study. Prior to beginning the main study, all learning materials and measures were piloted on junior and senior athletic training students who had already participated in a psychosocial aspects of healthcare course (Appendix C). As part of the psychosocial course, pilot participants had been introduced to PCC, but the course did not include the specific four-part PCC modules being studied. Based on results and feedback from participants in the pilot study, changes were made to the curriculum of the learning module. The original content information was retained, but original homework

assignments were removed. A book and student-athlete panel were added to the curriculum of the module.

Study intervention. A four-part learning module (LM) was designed to incorporate PCC into four primary aspects of patient care: clinical evaluation, treatment/rehabilitation, interprofessional referral and return to participation (Appendix D). Each part of the learning module was developed using the most current and relevant literature on PCC available. On the first day of the intervention, participants completed a pre-study survey, including short-answer questions. The survey took five to ten minutes to complete. All participants had completed their clinical evaluation observation prior to beginning the first day of the study. Classes met Tuesdays and Thursdays for an hour and fifteen minutes and the module was taught over eight class periods, or four weeks. Participants attended each class lecture, engaged in class discussions and activities and read *In Shock* by Dr. Rana Awdish outside of class.

Table 1. Timeline of Learning Module

	<u>Week 1</u>	<u>Week 2</u>	<u>Week 3</u>	<u>Week 4</u>
Class 1	PowerPoint: Clinical Evaluation	PowerPoint: Treatment/ Rehab Plan	PowerPoint: Inter-professional referral	PowerPoint: Return to Participation
Class 2	Building a therapeutic alliance	Student-athlete panel discussion	Role playing with student-athletes	Group discussion of <i>In Shock</i>
Homework	<i>In Shock</i> Reading questions sect. 1	<i>In Shock</i> Reading questions sect. 2	<i>In Shock</i> Reading questions sect. 3	<i>In Shock</i> Reading questions sect. 4

Week 1: LM part 1- Clinical evaluation. The first part of the learning module focused on the clinical evaluation process. Topics covered included: a more comprehensive evaluation process to assess a patient's overall functioning physically, psychologically, and socially, the differences between the biomedical model of care and a PCC model of care, various models of PCC across healthcare disciplines and building a therapeutic alliance with patients. The emphasis was on creating an engaging and interactive relationship with a patient that made the patient a partner in their own care. This portion of the module also explored empathy, understanding and fostering a sense of shared power and responsibility between the healthcare provider and the patient.

Week 2: LM part 2- Treatment/rehabilitation plan. The second part of the learning module focused the treatment and rehabilitation plan. This module educated students about the World Health Organization's (WHO) International Classification of Functioning, Disability and Health (ICF) model (WHO ICF disablement model), communication between the patient and provider and fostering a collaborative therapeutic alliance when developing a comprehensive treatment plan. This module also discussed encouraging the patient to take an active role in their care as well as including patient input in developing therapeutic goals. Participants met with a panel of four student-athletes (three female and one male) outside of normal class time to discuss each student-athlete's injury experience. This activity met outside of class time in order to give panelists and participants more time to interact and to accommodate class schedules of the panelists. The discussion lasted an hour and thirty minutes.

Week 3: LM part 3- Interprofessional referral. The third part of the learning module focused on the referral process. This module focused on interprofessional communication and coordination of care on behalf of the patient and using informatics to support communication and continuity of care. Discussions centered on the importance of building interprofessional relationships with other healthcare professions and understanding participant's experiences engaging in interprofessional collaboration. As part of a class activity, two student-athletes came to class to role play with the participants. Role play scenarios asked participants to talk with an athlete and a coach about the athlete's injury and the need to refer them to another healthcare professional.

Week 4: LM part 4- Return to participation. Learning module part four focused on discharge and return to participation. This module focused on preparing the patient, both physically and psychologically, for return to play and discussed patient self-care and management following discharge from medical care. This portion of the module emphasized continued monitoring of the patient's overall functioning even after they are back to full participation. The final class for this learning module was a class discussion of the book, *In Shock*, by Dr. Rana Awdish.

Results

Results of the pre-post survey on perceived use of PCC are presented first. The results of the observation and use of PCC follow. Data were analyzed using SPSS 25.

Survey Results

Results of the paired t-tests on pre-post survey items demonstrated a significant improvement in participants' perceived use of PCC in their clinical practice. One

participant was excluded from the analyses for missing more than 50 percent of the learning module due to a medical issue. The remaining 10 participants showed significant improvement in their use of person-centered care in 7 out of 11 categories of holistic care, 11 out of 13 categories in collaborative care and 9 out of 11 categories in responsive care (Appendix G). In addition to conducting paired t-tests on the pre-post items ratings, an average pre and post rating was calculated for each of the three categories, and paired t-tests were calculated for the three average category scores. As table 2 shows, average ratings increased significantly in all three categories (results for individual items are in Appendix G). Results of a Hedge's g analysis indicate a large effect size for each category (HCavg $g=1.29$ CL effect size=.83; CCavg $g=2.04$ CL effect size=.94; RCavg $g=1.63$ CL effect size=.89).

Table 2. Average Mean Scores of Pre-post Survey.

<u>Category</u>	<u>Pre- intervention</u>	<u>Post- intervention</u>	<u>Mean</u>	<u>Std. Deviation</u>	<u>t</u>	<u>Sig.</u>
Holistic Care Avg.	3.05 ± .62	4.0 ± .78	-0.95	0.69	-4.39	0.002*
Collaborative Care Avg.	3.25 ± .66	4.47 ± .47	-1.22	0.61	-6.38	0.001*
Responsive Care Avg.	3.22 ± .80	4.37 ± .52	-1.07	0.77	-4.41	0.002*

($n=10$, $df=9$, * $p < .01$, two-tailed)

Based on short-answer responses, participants also demonstrated improved understanding and awareness of PCC in their clinical settings (Appendix H). Participants displayed an enhanced understanding of what PCC looks like in clinical practice compared to their pre-study responses; they were more thoughtful and incorporated more concepts of PCC. Participants also displayed greater efforts to incorporate aspects of PCC into their clinical

practice compared to their pre-study responses. Pre-survey responses focused on asking questions about how the patient is doing and listening to what they say. Post-survey responses included questions about coping or need for accommodations, providing support, displaying concern for the patients' well-being and making sure patients understand what they are being told.

Clinical Evaluation Observation

Pre-intervention clinical evaluation observations revealed that participants used a biomedical approach to conduct their evaluation. Participants spent the majority of their time asking questions related to the model patient's physical injury and writing on their evaluation form. Participants spent their time focusing on doing their evaluation correctly and arriving at a correct diagnosis. Little consideration was given to the model patient in front of them, except that participants monitored the model patient's pain when determining how to conduct a certain test or choosing to not use a test. Arriving at a diagnosis, participants would give their model patient a quick overview of what they needed to do and suggest treatments based on symptoms; these were given as instructions rather than a discussion of treatment options.

Post-intervention clinical evaluation observations demonstrated that participants incorporated more person-centered skills and concepts into their clinical evaluation (Table 3). Results of a Hedge's g analysis of observation data indicate a large effect size for each category (HC $g=1.50$ CL effect size=.87; CC $g=2.07$ CL effect size=.94; RC $g=1.28$ CL effect size=.83).

Table 3. Mean Scores of Clinical Evaluation Observations. Scores represent the percentage of correct responses.

<u>Category</u>	<u>Pre-intervention</u>	<u>Post-intervention</u>	<u>Mean</u>	<u>Std. Deviation</u>	<u>t</u>	<u>Sig.</u>
Holistic Care	4.5 ± .71	6 ± 1.15	-1.5	1.58	-3	.01*
Collaborative Care	.5 ± .71	3.8 ± 2.04	-3.3	1.83	-5.71	.001*
Responsive Care	2.8 ± 1.4	4.9 ± 1.73	-2.1	2.18	-3.04	.01*

(n=10, df=9, *p < .01)

Participants would ask how the person was functioning with their injury and how it was affecting them overall. Most of the participants spent more time talking with the model patient and less time writing on their evaluation form. Model patients were much more engaged with participants who spent minimal time writing during their evaluation than with those who were constantly writing.

Similar to the pre-intervention observations, participants would give the model patient a diagnosis and proposed plan of treatment. Because participants were first year students in an athletic training program they still had trouble explaining an injury to the model patient, but did attempt to explain. More discussion took place with the model patient when trying to develop a rehabilitation/treatment plan. Model patients were responsive to participants who were more engaged with them and who displayed an interest in them. Due to this, participants who were more engaged were able to elicit more information from the model patient about their injury as well as the model patient's perspective, preferences and needs.

Discussion

Findings suggest that actively incorporating PCC into the curriculum of an athletic training course can have a significant impact on students' understanding, use and

perceived use of PCC in their clinical practice. The initial pilot study was conducted on athletic training students who had already been introduced to concepts of PCC, but who continued to model a biomedical model of care. Results of the pilot demonstrated that participants increased their perceived use of PCC, but not at statistically significant levels, and significantly increased their use of PCC in two out of three categories. What appeared to be missing from the pilot study was a way to make the information and concepts relatable for participants. This study added two new elements: a book which portrayed a first-hand account of PCC and how it impacts a patient's health and wellness, and a panel discussion with student-athletes and how they have been affected by their injuries. Findings of this study demonstrated a significant increase in participant's use and perceived use of PCC with large effect sizes. Participants also displayed improved understanding and awareness of PCC in their clinical practice.

Athletic training programs predominantly use a biomedical model to prepare students as healthcare providers and many athletic training professors and clinical preceptors continue to pass down this culture of healthcare. Even though participants in the pilot study knew about PCC, they continued to operate within the biomedical model clinically in their pre-clinical observations. In order to indoctrinate the next generation of athletic trainers into a person-centered model of care, it is important to incorporate this model throughout the athletic training education curriculum and make it relatable to students. Ben Natan and Hochman (2017) recommend designing and implementing training programs that help healthcare workers internalize processes of PCC. This can be achieved by creating a culture of PCC in the didactic and clinical education of athletic

training students. The present study specifically looked at implementing PCC into four major areas within athletic training healthcare: clinical evaluation, treatment/rehabilitation, interprofessional referrals and return to participation.

Participants were shown what PCC looks like in clinical practice during each of these major areas and how they can be incorporated throughout their clinical practice. If PCC is to become the new standard of athletic training healthcare, the concepts and need to be actively incorporated into didactic courses and reinforced and modeled during students' clinical education.

This study is only a first look at how PCC can be incorporated into the athletic training curriculum. The purpose of the learning module was to develop a concrete view of what PCC looks like in everyday practice, but more work needs to be done to ensure students are seeing PCC modeled throughout their didactic and clinical education. As already mentioned, pilot study participants continued to model a biomedical approach to care even though they had already completed a course in psychosocial aspects of healthcare that focused on tailoring care for each individual patient. This appears to be due to the fact that they lacked a method of incorporating PCC into their clinical practice. They knew what they needed to do but the material had not been made relatable; they didn't have a concept of what this looked like in practice. This seems to indicate that simply teaching students to tailor care is not enough, more time needs to be devoted to specifically training students how to apply PCC into clinical practice. Training may begin in the classroom but needs to be reinforced during clinical education. This can only be

done if the clinical preceptors guiding student education share a person-centered culture of care. Students need to practice implementing PCC with their patients.

Conrad, Cavanaugh and Konrad (2012) contend that the best educational experiences to prepare students for person-centered care involve direct, face-to-face communication whether simulated or live. Interacting with a variety of people with unique life experiences help build realistic skills and awareness of others. This can be done during clinical education. Participants in this study noted that the most valuable learning experience came from interacting with the student-athlete injury experience panel. They were able to hear not only how injury affected the person, but also how healthcare providers affected the care process and the person receiving care. The student-athletes' shared experiences made the material relatable and relevant to the participants. Introducing person-centered concepts early in the athletic training curriculum will allow athletic training students to work on both developing their technical evaluation and rehabilitation skills and incorporating PCC into those skills. PCC concepts, such as effectively communicate with and educating patients about their injury will help augment learning by ensuring that students understand the material to the point that they can effectively convey information to another person. It will also make students more aware of each individual patient by taking the time to assess each ones preferences, needs and values.

There are limits to this study. The study used a small sample without a control group, and it was completed in a single semester rather than following a cohort of students throughout their entire curriculum. Clinical preceptors were not trained to

reinforce concepts taught in the learning modules. Observational measures were marked on a yes-no scale versus a continuum scale. Despite the limitations, the findings provide support for incorporating PCC into athletic training education. More research is needed to understand the best methods and modes of incorporating PCC into the athletic training curriculum. New educational materials and training programs for clinical preceptors need to be developed in order to further indoctrinate PCC into the culture of care within athletic training.

CHAPTER II

DISSEMINATION

This presentation was given at the Methodist University Research Symposium (Appendix H). The target audience was the faculty, staff and students of Methodist University. The aim was to present the findings of this research and discuss new avenues of research on person-centered care in athletic training and athletic training education.

The presentation began with an overview of the current literature in person-centered care (PCC), pointing out that PCC has been identified as a gold standard of care and one of the six domains of quality healthcare as set forth by the Institute of Medicine. It continued with a discussion of the differences between patient-centered and person-centered care. There are several models of PCC in the literature that were incorporated into the learning module developed for this study. The National Athletic Trainers' Association adopted the World Health Organization's (WHO) International Classification of Functioning, Disability and Health (ICF) disablement model in 2012, which incorporates aspects of PCC into understanding how patients are functioning with an injury or illness. The presentation continued with an introduction of the purpose statement and research questions associated with the study. It covered the participants and measures used in the study and an overview of the study's procedures.

A pilot study was conducted prior to beginning the main study in which all learning materials and measures were piloted on junior and senior athletic training

students who had already participated in a course on psychosocial aspects of healthcare. Results of the pilot showed non-significant changes in participants' perceived use of PCC in their clinical practice on the pre-post survey and significant improvement in their use of PCC in holistic care and collaborative care during the post-intervention clinical evaluation observation. Based on these findings and input from the pilot participants, changes were made to the curriculum of the learning module. Original homework assignments and use of an electronic medical record (EMR) were removed and replaced by a book and student-athlete panel.

An overview of the learning module was discussed along with how each part of the learning module can be incorporated into courses within the athletic training curriculum. More information was given about the student-athlete panel and the book included in the learning module. Both were incorporated to add a more personal, relatable element to the participants' learning; they offered first-hand accounts of how someone may be affected by an injury or illness and how this can affect their overall functioning.

Results of both the survey and the clinical evaluation observation in the main study demonstrated significant improvement in participants' perceived use and use of PCC in their clinical practice. Short answer responses on the survey indicated that participants credited the new student-athlete panel, interacting with student-athletes to role-play different scenarios that incorporate PCC as the most helpful to their learning.

Because this study demonstrated significant improvement in participants' use of PCC, discussion focused on the need to incorporate PCC into all aspects of the athletic training curriculum. Findings and methods were consistent with the literature which

recommends designing and implementing training programs that help healthcare workers internalize processes of person-centered care (Ben Natan & Hochman, 2017) as well as advocating that the best educational experiences to prepare students for person-centered care involve direct, face-to-face communication whether simulated or live (Conrad, Cavanaugh & Konrad, 2012). Limitations of the study included a small sample size, lack of a control group and potential bias on the part of the participants who knew what the primary researcher was evaluating during the clinical evaluation observations.

Future directions and areas of research were discussed. New educational materials need to be developed and more training on PCC needs to be made available for certified athletic trainers. Students work with certified athletic trainers from their first day in an academic program and students would benefit from seeing PCC modeled in their clinical education sites. The presentation concluded with a representation of what a biomedical clinical evaluation looks like compared to a person-centered clinical evaluation. This was added to aid in understanding the difference between the two approaches and the difference in information garnered from patients in each approach.

CHAPTER III

ACTION PLAN

The process of developing the learning module for this study, as well as the process of carrying out the main study was as informative as the final results of the study. Most enlightening is the fact that telling athletic training students to tailor care to each patient is less effective than presenting them with concrete methods of tailoring care. The catalyst for this study was the realization that athletic training teaches students about person-centered care (PCC), but does not consistently practice PCC. Results of the pilot study and main study support this idea. Participants in the pilot study had already been taught about PCC in a psychosocial aspects of healthcare course, without the current learning module, but pre-study observational measures of their use of PCC indicated that they continued to operate within a culture of biomedical care. Participants in the main study clearly demonstrated a biomedical approach to their care at the beginning of the study. Because this study is just a starting point, more research is needed to further explore how to best incorporate a culture of PCC into the culture of athletic training.

To meet this need, I plan on submitting the findings of my research to the National Athletic Trainers' Association (NATA) *Athletic Training Education Journal*. I am also applying to present about person-centered care and how to implement it into an athletic training curriculum at the Athletic Training Educators' Conference in early 2019. Long-term goals for continuing the discussion and implementation of PCC into athletic

training include further research on PCC, developing training modules for certified athletic trainers to model PCC in their clinical practice, and developing new learning materials specifically related to PCC.

PCC is a topic talked about and researched in a number of other healthcare professions, but there is limited research within the athletic training literature. To meet this need, I plan on developing several research projects to investigate various aspects of PCC in athletic training settings. In particular, I want to investigate how athletic trainers and other healthcare providers impact both the development of a therapeutic alliance with their patients as well as the overall care process and investigate how student-athletes and other patients respond to a person-centered versus biomedical model of care. Following the implementation of the student-athlete injury experience panel in this study, I plan on conducting a qualitative analysis of student-athletes' emotional, psychological and social experiences related to injury.

The number one comment by participants in the pilot study was the need to see PCC modeled and reinforced in their clinical education settings. They wanted to see their clinical preceptors model the level of care they were being taught in the learning module. To fully incorporate PCC into athletic training, it must become a part of athletic training culture and an integrated part of each athletic trainers' healthcare philosophy. More attention needs to be placed on educating current athletic training professionals on delivering PCC. Unlike most other healthcare professions, athletic training students are placed in a clinical education site their first semester in an athletic training program. From the very beginning, athletic training students are interacting with athletic training

professionals and learning how to model their own professional interactions with patients. Based on the need to provide settings in which athletic training students can see PCC modeled by providers, I plan to develop seminars and presentations for local, state and national level conferences that can inform current professional about PCC and how to apply it in their own practice.

Implementing PCC into the culture of athletic training needs to start in the classroom. The purpose of this study was to investigate ways in which PCC could best be incorporated into an athletic training curriculum. Based on feedback from the participants, PCC needs to be integrated across the athletic training curriculum. Each portion of this learning module was specifically designed with core athletic training courses in mind. In order to facilitate incorporating PCC into core courses, I plan on developing a textbook on PCC in practice and potentially collaborating with other textbook writers to incorporate aspects of PCC into their existing textbooks. This study is only a first step toward a new line of research related to PCC in athletic training.

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APPENDIX A
STUDY SURVEY

	Never	Hardly ever	Some-times	Most of the time	Always
Holistic Care					
I ask about a patient's physical domains of health (i.e. pain, strength, flexibility, etc.	1	2	3	4	5
I ask about a patient's psychological domains of health (i.e. emotions, state of mind, feelings about the injury, etc.)	1	2	3	4	5
I ask about a patient's social domains of health (i.e. housing, access to care, work, family influence, etc.)	1	2	3	4	5
I ask about a patient's spiritual domains of health (i.e. what are their spiritual and religious beliefs and how they may influence care)	1	2	3	4	5
I assess a patient's understanding of their injury or illness	1	2	3	4	5
I assess a patient's treatment goals	1	2	3	4	5
I identify concerns a patient may have about their treatment plan	1	2	3	4	5
I adjust a patient's treatment plan based on their needs	1	2	3	4	5
I provide emotional support to a patient	1	2	3	4	5
I provide information regarding injury prevention to the patient	1	2	3	4	5
I provide information on injury management to the patient	1	2	3	4	5
Collaborative Care					
I provide information to a patient about their injury or illness in a complete and unbiased way	1	2	3	4	5
I am respectful of a patient's preferences and beliefs about their injury or illness	1	2	3	4	5
I promote discussion with the patient to make sure they understand their injury and proposed treatment plan	1	2	3	4	5

I provide information to the patient about treatment options and self-management strategies	1	2	3	4	5
I take patient preference and needs into consideration when developing their treatment plan	1	2	3	4	5
I take patient preference and needs into consideration when developing their treatment plan	1	2	3	4	5
I answer questions a patient may have about his/her care	1	2	3	4	5
I ask about a patient's preferences for treatment or self-management	1	2	3	4	5
When using a treatment for the first time, I explain to the patient what to expect and the expected outcome of the treatment.	1	2	3	4	5
I check to make sure the patient and I are in agreement about their treatment plan	1	2	3	4	5
I provide instructions to the patient on how to perform therapeutic exercises and home treatment plans	1	2	3	4	5
I help the patient, as needed, with their treatment plan	1	2	3	4	5
I explore with the patient who he/she wants to be involved in his/her care	1	2	3	4	5
I incorporate the patient and family in patient care	1	2	3	4	5
Responsive Care					
I respond to the patient's needs, beliefs, values and preferences	1	2	3	4	5
I adjust a patient's treatment plan over time in response to the patient's needs and preferences	1	2	3	4	5
I check in with the patient about how they are coping with their injury	1	2	3	4	5
I take time to answer patient questions	1	2	3	4	5
I adjust a patient's treatment plan based on how they are coping physically with their injury or illness	1	2	3	4	5
I adjust a patient's treatment plan based on how they are coping psychologically with their injury or illness	1	2	3	4	5

I adjust a patient's treatment plan based on how they are coping socially with their injury or illness	1	2	3	4	5
I adjust a patient's treatment plan based on how they are coping spiritually with their injury or illness	1	2	3	4	5
I make sure the patient has what he/she needs with regards to his/her health care	1	2	3	4	5
I make sure the patient has what he/she needs with regards to community or university resources	1	2	3	4	5
I comfort the patient when needed.	1	2	3	4	5

Adapted from Sidani et al, 2014.

SHORT ANSWER QUESTIONS

Pre-study survey:

1. Please describe what person-centered care means to you, or looks like to you, in an athletic training setting.
2. How do you currently incorporate person-centered care into your clinical practice?

Post-study survey:

1. Please describe what person-centered care means to you, or looks like to you, in an athletic training setting.
2. How do you currently incorporate person-centered care into your clinical practice?
3. How has this learning module affected how you provide care to your patients?
4. What was the most helpful or insightful portion of this learning module?
5. What is the most difficult part of using person-centered care?
6. What suggestions do you have for improving the use of person-centered care in athletic training? Any additional comments or suggestions

APPENDIX B

CLINICAL EVALUATION OBSERVATION ASSESSMENT

Name:	Date:	
	Yes	No
Holistic Care		
Conducts Multidimensional assessment:		
Asks about school impact		
Asks about psychological well-being (e.g. stress)		
Asks about social functioning		
Asks about physical issues		
Appears comforting		
Provides emotional support		
Provides appropriate physical care (appropriate physical exam)		
Communicates information about the problem		
Communicates information about the proposed treatment		
Collaborative Care		
Involves patient in decision making		
Educates patient about injury		
Provides options for care		
Respectful of patient question and concerns		
Sense of shared power and responsibility		
Comes to an agreement with patient on treatment and meeting times		
Responsive Care		
Body language is open and welcoming		
Addresses patient by name		
Participant introduces themselves to patient		
Displays understanding and empathy for patient's perspectives, feelings and needs		
Respectful of patient's preferences and expressed needs		
Provides flexible, personalized care		

APPENDIX C

PILOT STUDY

Prior to beginning the main study, a pilot study was conducted with upper level athletic training students. The purpose of this pilot study was to evaluate how well a course in psychosocial aspects of healthcare prepared students to provide person-centered care without the more specific learning module, how well the learning module built on what the students had already learned and to assess these students' perceptions of the learning module.

Methods

Participants

Participants in the pilot study were recruited from a private, southeastern Commission on Accreditation for Athletic Training Education (CAATE) accredited athletic training program. Participants were recruited via email from the junior and senior level classes. Each had completed over 300 hours of clinical education, upper and lower extremity evaluation courses as well as a course in psychosocial aspects of athletic training. In the psychosocial course, students had been introduced to the concept of patient-centered care and the majority of the curriculum focused on tailoring care to the patient. Seven students (4 females, 3 males) agreed to participate in the pilot study.

Measurements

Survey. The survey was adapted from Sidani et.al.'s (2014) measure of healthcare providers' implementation of PCC. The survey asked participants to rate their perceived

use of PCC within three categories: holistic care, collaborative care and responsive care. Prior to the study, the survey was given to five certified athletic trainers and two kinesiology professionals for input on ease of understanding, wording and ability to rate each category. Based on feedback, the categories used in the original measure were retained but wording and content was modified to better represent an athletic training role of care (Appendix A). The final survey consisted of three sections (holistic care, 11 questions; collaborative care, 13 questions; and responsive care, 11 questions) in which participants rated statements on a 5-point scale from never to always.

Clinical evaluation observation. The observation assessment was adapted from Sidani et.al.'s (2014) measure of healthcare providers' implementation of PCC (Appendix B). This measure assessed each participant's use of PCC in a clinical evaluation. Participants were marked yes or no for performing each item of PCC. The assessment tool was divided into three sections: holistic care with 9 items (e.g. asks about social functioning), collaborative care with 6 items (e.g. involves patient in decision making) and responsive care with 6 items (e.g. provides flexible, personalized care).

Participants were observed performing a clinical evaluation on a model patient prior to beginning the learning module and prior to completing the pre-study survey. Model patients were recruited from the university's athletic department. They were asked to serve as a model if they had a current athletic injury that was two weeks or more post-injury and no surgical intervention associated with the current injury. Model patients were instructed to present their injuries as they currently existed and to answer all questions from the participants openly and honestly, to be themselves and to make

comments or ask questions as they thought appropriate. The goal of the observation was to create a realistic healthcare scenario that each participant was likely to face within their clinical practice. Participants were paired with model patients who were available during their scheduled observation time and each evaluation was conducted in an athletic training facility where participants were assigned for their clinical education.

Participants were instructed to conduct a clinical evaluation to the best of their ability. They were told to act as if they were meeting the model for the first time and were instructed to imagine that they were serving as the model's primary athletic trainer and it was their sole responsibility to evaluate and treat the model. Participants were asked to complete a full evaluation using a SOAP (Subjective, Objective, Assessment, Plan) note format and present the model with an assessment and general plan of treatment. Each participant was evaluated using a rubric based on Sidani et.al. (2014) measure of healthcare providers' implementation of PCC. The rubric evaluated whether the participant did or did not incorporate specific aspects of PCC into their clinical evaluation.

Procedures

Prior to beginning the learning module, each participant completed an informed consent form and all study measures. For the learning model, participants met on four separate occasions outside of class time for one to two hours. Each meeting represented one of the four primary components of the learning module. The meetings were spaced over the course of a month, allowing participants opportunities to apply person-centered care in their clinical education rotations.

Learning module 1: Clinical evaluation. At the beginning the first learning module, participants were introduced to the Athletic Trainer System (ATS), an electronic medical record (EMR). ATS was chosen for this study since it was the EMR currently being used by the university's athletic training department. As part of their introduction, participants were asked to enter their clinical evaluation, completed during their evaluation observation, into ATS. This patient evaluation would serve as their case study throughout the learning module.

Learning module one focused on incorporating person-centered care into the clinical evaluation and introduced students to a more comprehensive evaluation process. The module began with a discussion of the differences between the biomedical model of care and a person-centered care model of care. Participants were introduced to various models of person-centered care across healthcare disciplines. The primary model discussed was the one set forth by Sidani and Fox's (2014). This was also the model used to organize the survey and clinical observations. Participants were asked to think about how they used each aspect of this model in their clinical practice and how they could better incorporate aspects of person-centered care into their clinical practice.

For a class activity, participants were placed into pairs and asked to role play with their partner using a person-centered clinical evaluation process. The focus was on creating an engaging and interactive relationship with a patient (i.e. beginning the development of a therapeutic alliance with a patient) and to assess the patient's overall functioning. One participant acted as the patient while the other acted as the athletic trainer. Participants were asked to not focus solely on the physical aspects of the

evaluation, but to also incorporate questions that assessed a patient's psychological, social and emotional functioning. Rather than opening the evaluation with "what happened?" or "what's wrong?" participants were asked to rephrase to a more open and engaging questions, such as "what brings you to see me today?" or "how can I help you?" Other encouraged questions included "how is everything going?" "how is this injury affecting you?" "do you need any extra help managing this injury outside of athletics?" Participants were asked to put themselves in the place of their model patient and answer questions based on how that person may be functioning with their injury. Once one partner had time to practice in one role, they switched roles. As homework, participants were asked to edit their original evaluation in a new file in ATS and incorporate information elicited during the role-playing into the new evaluation.

Learning module 2: Treatment plan. Learning module two focused on incorporating person-centered care in to the treatment plan. This module educated students about the World Health Organization's (WHO) International Classification of Functioning, Disability and Health (ICF) model, communication between the patient and provider and fostering a collaborative therapeutic alliance with the patient. Participants were introduced to the WHO ICF disablement model which takes a comprehensive look at how a patient is functioning with an injury, factoring in the patient's physical, psychological and social functioning. To understand how a patient is functioning, participants must foster open lines of communication with the patient and listen to their needs and values to develop a personalized care plan. Only when the patient and provider meet on a plane of mutual respect and understanding can they begin to foster a

therapeutic alliance. This module also discussed encouraging the patient to take an active role in their care as well as include patient input into developing therapeutic goals.

At the beginning of the module, participants were asked to create a treatment plan with 5-7 rehabilitation exercises, and any other treatments the participant deemed appropriate for their patient and enter their plan into ATS. Following the learning module, participants were paired up with a new partner. One participant acted as a patient while the other acted as the athletic trainer. The goal was to practice talking with a patient about the treatment process. The person acting as the athletic trainer would give a synopsis of their model patient's injury. They would then practice explaining the injury to their partner/patient (e.g. physically what was going on in their body, potential challenges and complications, expected outcomes from following or not following a treatment plan, etc.), responding to any questions or concerns the patient may express and working with the patient to set SMART (specific, measurable, attainable, realistic and timely) goals. As homework, participants were asked to edit their original treatment plan in a new file in ATS and incorporate information elicited during the role-playing into the new treatment plan. The goal was to go beyond creating exercises and treatments and developing a comprehensive plan that documented the patient's role in the process.

Learning module 3: Referral. Learning module three focused on incorporating person-centered care into the referral process. This module focused on interprofessional communication and coordination of care on behalf of the patient and using informatics to support communication and continuity of care. Discussions centered on the importance of building interprofessional relationships with other healthcare professions and

understanding participant's experiences engaging in interprofessional collaboration. The module also emphasized the patient's primacy when making a referral. Participants discussed how to approach a patient about a referral, what the patient can expect from the referral process and not allowing the referring provider's biases affect a patient's continued care. In terms of bias, one example used was incorporating eastern medicine into a primarily western medicine environment if it would benefit the patient and address the patient's needs and values. This module also examined informatics, what this is and how it is used to aid in continuity of care between healthcare providers.

Following the learning module, participants were paired up with a new partner. Participants were asked to practice talking with patients about being referred to another healthcare professional. They were also asked to practice talking with coaches about treatment and referral options. Within athletic training, it is important not only to involve the patient, but many times athletic trainers must advocate for the patient with their coaches. Each group was given a different scenario to practice and then present to the group. Scenario one involved referring a patient with a moderate injury for further evaluation but taking into consideration outside influences on the patient's decision making such as family and coaches. Scenario two involved referring a patient with a potentially season ending injury. Participants had to practice talking to the patient about treatment options, ability to play, potential surgical and rehabilitation protocols as well as what to expect from their visit to the physician. Also, participants had to discuss these options with the coach as well. Scenario three involved referring a patient for an injury that would require surgery, but with which the patient could potentially play. Participants

had to practice explaining to the patient what they could expect in terms of pain and limitations from their injury, what conditions would allow them to play as well as prevent them from playing, surgical and rehabilitation protocols and what to expect from their visit with the physician. Also, participants had to discuss these options with the coach as well. Scenario four involved a patient with potential disordered eating. This scenario required multiple referrals and required the participant to practice talking with a patient about a potentially sensitive and uncomfortable topic, both for the patient and the participant. As homework, participants were asked to write a referral for their model patient in ATS. The referral was written using the SBAR (Situation, Background, Assessment, Recommendation) model (Boykins, 2014) to communicate with another healthcare provider. The goal was to practice writing professional emails that include important information to communicate with other healthcare providers.

Learning module 4: Return to participation. Learning module four focused on person-centered care during discharge and return to participation. This module focused on preparing the patient, both physically and psychologically, for return to play and self-care and management following discharge from medical care. There is not much literature on person-centered care for return to participation. The focus was on guiding the patient through a progression that will help them physically adapt to being back out on the field or court as well as help them overcome and manage and psychological challenges or concerns that may prevent or limit their return. The overriding message was to continue to monitor the patient's overall functioning even after they are back to full

participation. Although they may be physically active, they may still have some impaired functioning in their everyday life.

The final class activity involved a class discussion of what it's like to return to participation following an injury. Participants were asked to explore potential emotions and challenges a patient may be experiencing and discuss how to monitor a patient's progress even after they return to full participation. Participants documented a discharge note in ATS that took into consideration not only the patient's physical recovery, but also any psychological, emotional, social or other concerns that may need to be monitored.

Following completion of the learning module, participants were asked to complete a post-study survey and complete a post-study clinical observation. Participants were re-observed interacting with a model patient at the beginning of the spring semester.

Results

Results of the pre-post survey on perceived use of PCC are presented first. The results of the observation and use of PCC follow.

Survey Results

Results of the paired t-tests on pre-post survey items demonstrated no statistically significant improvement in participants' perceived use of PCC in their clinical practice.

Table 4. Pilot Study Survey Results

<u>Category</u>	<u>Mean</u>	<u>Std.</u> <u>Deviation</u>	<u>t</u>	<u>Sig.</u>
<u>Holistic Care</u>				
I ask about a patient's physical domains of health (i.e. pain, strength, flexibility, etc.	-0.43	0.79	-1.44	0.20

I ask about a patient's psychological domains of health (i.e. emotions, state of mind, feelings about the injury, etc.)	-0.71	0.95	-1.99	0.09
I ask about a patient's social domains of health (i.e. housing, access to care, work, family influence, etc.)	-0.29	1.60	-0.47	0.65
I ask about a patient's spiritual domains of health (i.e. what are their spiritual and religious beliefs and how they may influence care)	-0.14	0.38	-1.00	0.36
I assess a patient's understanding of their injury or illness	-0.71	1.11	-1.70	0.14
I assess a patient's treatment goals	-0.71	1.70	-1.11	0.31
I identify concerns a patient may have about their treatment plan	0.00	0.82	0.00	1.00
I adjust a patient's treatment plan based on their needs	0.00	0.82	0.00	1.00
I provide emotional support to a patient	0.29	1.38	0.55	0.60
I provide information regarding injury prevention to the patient	-0.86	1.95	-1.16	0.29
I provide information on injury management to the patient	-0.29	1.98	-0.38	0.72
<u>Collaborative Care</u>				
I provide information to a patient about their injury or illness in a complete and unbiased way	-0.43	1.72	-0.66	0.53
I am respectful of a patient's preferences and beliefs about their injury or illness	0.00	0.82	0.00	1.00
I promote discussion with the patient to make sure they understand their injury and proposed treatment plan	-0.14	0.38	-1.00	0.36
I provide information to the patient about treatment options and self-management strategies	-0.71	1.25	-1.51	0.18
I take patient preference and needs into consideration when developing their treatment plan	0.29	1.50	0.51	0.63
I answer questions a patient may have about his/her care	-0.29	0.49	-1.55	0.17
I ask about a patient's preferences for treatment or self-management	0.29	0.95	0.80	0.46
When using a treatment for the first time, I explain to the patient what to expect and the expected outcome of the treatment.	-0.71	1.38	-1.37	0.22
I check to make sure the patient and I are in agreement about their treatment plan	-0.57	1.81	-0.83	0.44
I provide instructions to the patient on how to perform therapeutic exercises and home treatment plans	0.00	1.53	0.00	1.00
I help the patient, as needed, with their treatment plan	0.00	0.58	0.00	1.00
I explore with the patient who he/she wants to be involved in his/her care	0.43	1.51	0.75	0.48
I incorporate the patient and family in patient care	0.29	1.60	0.47	0.65
<u>Responsive Care</u>				
I respond to the patient's needs, beliefs, values and preferences	0.29	0.95	0.80	0.46
I adjust a patient's treatment plan over time in response to the patient's needs and preferences	0.00	0.58	0.00	1.00
I check in with the patient about how they are coping with their injury	0.57	1.40	1.08	0.32

I take time to answer patient questions	-0.29	0.49	-1.55	0.17
I adjust a patient's treatment plan based on how they are coping physically with their injury or illness	0.29	0.95	0.80	0.46
I adjust a patient's treatment plan based on how they are coping psychologically with their injury or illness	0.43	1.99	0.57	0.59
I adjust a patient's treatment plan based on how they are coping socially with their injury or illness	0.14	2.19	0.17	0.87
I adjust a patient's treatment plan based on how they are coping spiritually with their injury or illness	-0.29	2.63	-0.29	0.78
I make sure the patient has what he/she needs with regards to his/her health care	-0.14	1.07	-0.35	0.74
I make sure the patient has what he/she needs with regards to community or university resources	-0.43	1.27	-0.89	0.41
I comfort the patient when needed.	-0.29	1.38	-0.55	0.60

(n=7, df=6, $\alpha=.05$)

In addition to conducting paired t-tests on the pre-post items ratings, average pre and post ratings were calculated for each of the three categories, and paired t-tests were calculated for the three average category scores. As table 5 shows, average ratings did not show a statistically significant increase in any of the three categories.

Table 5. Average Mean Scores of Pilot Survey.

<u>Category</u>	<u>Pre-intervention</u>	<u>Post-intervention</u>	<u>t</u>	<u>Sig.</u>
Holistic Care Average	2.95 ± .77	3.30 ± .56	-1.456	0.196
Collaborative Care Average	3.76 ± .66	3.88 ± .54	-0.448	0.67
Responsive Care Average	3.81 ± .80	3.78 ± .82	0.066	0.95

(n=7, df=6, $\alpha=.05$, two-tailed)

Clinical Evaluation Observation

Pre-intervention clinical evaluation observations revealed that participants used a biomedical approach to their evaluation. Participants spent the majority of their time asking questions related to the model patient's physical injury and writing on their

evaluation form. Participants spent their time focusing on doing their evaluation correctly and arriving at a correct diagnosis. Little consideration was given to the model patient in front of them, except that participants monitored the model patient's pain when determining how to conduct a certain test or choosing to not use a test. Arriving at a diagnosis, participants would give their model patient a quick overview of what they needed to do and suggest treatments based on symptoms; these were given as instructions rather than a discussion of treatment options.

Post-intervention clinical evaluation observations demonstrated that participants incorporated more person-centered skills and concepts into their clinical evaluation.

Table 6. Average Mean Scores of Pilot Clinical Evaluation Observation.

	<u>Pre- intervention</u>	<u>Post- intervention</u>	<u>Mean</u>	<u>Std. Deviation</u>	<u>t</u>	<u>Sig</u>
Holistic Care	4.14 ± .69	6.29 ± 1.11	-2.14	1.35	-4.215	0.006*
Collaborative Care	0.71 ± .76	4 ± 2.45	-3.29	2.14	-4.066	0.007*
Responsive Care	4.57 ± 1.40	4.71 ± .95	-0.14	1.07	-0.354	0.736

(n=7, df=6, α=.05, *P<.05)

Participants showed significant improvement in holistic care and collaborative care. They were already doing a good job with responsive care and that did not change significantly. Participants were junior and senior level athletic training students who had completed the majority of their clinical experience time and were responsive to patient needs in both the pre- and post-intervention observation. They also made a more conscious effort to incorporate PCC skills into their clinical evaluation.

Discussion

Based on the findings of this pilot study, changes were made to the main study. Homework assignments during the pilot study were met with a mixed level of response from participants. Assignments focused on having participants practice documenting their person-centered care in an electronic medical record (EMR). The EMR selected was a classroom version of an EMR currently used in the participant's primary clinical education site. Despite the use of the EMR in their clinical setting, few participants were familiar with using the software. The use of the EMR was excluded as a method of evaluation in the final study for several reasons: the purpose of the study was not to evaluate the effectiveness of the EMR, too much additional time would need to be devoted to training students on the software, and the EMR was more relevant to an evaluation or rehabilitation course than the current psychosocial course. This was replaced by other educational assignments in the final study.

The pilot study did not reveal any statistically significant improvement in participants' perceived use of PCC, but did indicate improved use during their clinical evaluation observation. One reason for the lack of perceived use of PCC may have been due to senior level students spending less time in traditional clinical education settings. Seniors were enrolled in a clinical education course, but were placed in medical and physical therapy settings where they were not actively treating patients. They reported that they had not done any patient evaluations during the course of the pilot study.

Based on the results of the pilot study, two new items were added to the learning module. A book, *In Shock* by Dr. Rana Awdish, and a student-athlete injury experience

panel. These were added to allow participants to receive first-hand accounts from people who have been injured or ill and how that experience affected them. What was added was the personal element to help augment the learning process. Traditional teaching methods favor a biomedical approach to teaching and learning, which the pilot study was inadvertently developed. What appeared to be missing was a means to make the material relatable to the participants. All the participants had experienced injuries, both personally and professionally, but needed to be able to see how these affected others. Not everyone's experience is the same, in order to help build empathy and compassion, participants needed to be able to listen and hear their patient's individual experiences.

APPENDIX D

LEARNING MODULES

A four-part learning module (LM) was designed to incorporate PCC into four primary aspects of patient care: clinical evaluation, treatment/rehabilitation, interprofessional referral and return to participation. Each part of the learning module was developed using the most current and relevant literature on PCC available. Classes met Tuesdays and Thursdays for an hour and fifteen minutes and the module was taught over eight class periods, or four weeks. Participants attended each class lecture, engaged in class discussions and activities and read *In Shock* by Dr. Rana Awdish outside of class.

Week 1: LM part 1- Clinical evaluation. The first part of the learning module focused on the clinical evaluation process. Participants spent two class periods on developing a more comprehensive evaluation process to assess a patient's overall functioning physically, psychologically, and socially, and developing a therapeutic alliance with the patient. The PowerPoint presentation, shown at the end of this section, focused on the differences between a biomedical model of care and a PCC model of care, understanding various models of PCC across healthcare disciplines and building a therapeutic alliance with patients. Participants discussed creating an engaging and interactive relationship with a patient that made the patient a partner in their own care. They also discussed what empathy looks like in practice and worked on fostering a sense of shared power and responsibility between the healthcare provider and the patient.



PERSON-CENTERED CARE: CLINICAL EVALUATION



CONSENT FORMS



STUDY SURVEY

[Check your email](#)

CARE?

- AKA Patient-centered care
 - Term used to express that each patient should be understood as a unique human being
(Duggan, Geller, Cooper & Beach, 2004)
- Institute of Medicine (IOM) has identified person-centered care as a core competency of healthcare
- Shift away from the biomedical model of care which focuses on clinical outcomes and cost effectiveness toward a person-centered approach which places the patient at the center of care



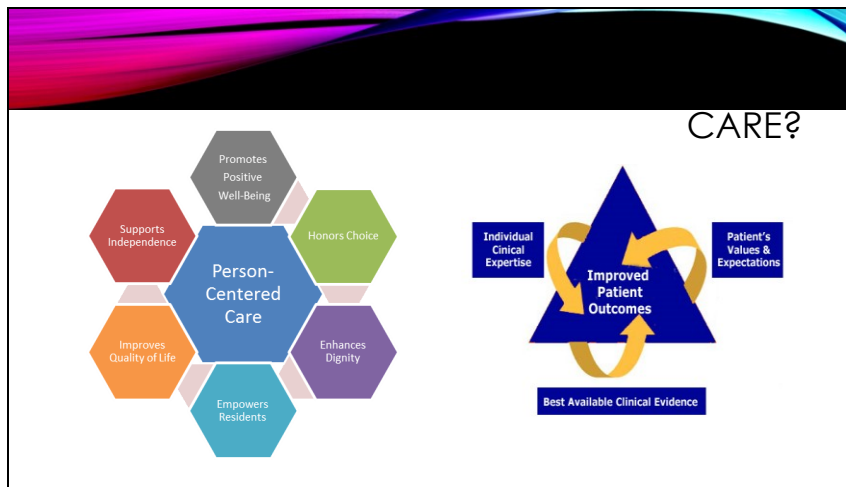
BIOMEDICAL APPROACH

Person-Centered	Traditional
Person-centered Strengths-based Skill acquisition Collaboration Community integration Quality of life Community-based Empowerment/choices Least restrictive Preventative	Practitioner-based Problem-based Deficit focus Professional dominance Acute treatment Cure/amelioration (improvement) Facility-based Dependence Episodic Reactive

PERSON-CENTERED CARE

1. Adopting a biopsychosocial perspective
2. Understanding the patient as a person and not an injury or illness
3. Sharing power and responsibility between the healthcare provider and patient
4. Building a therapeutic alliance
5. Understanding the healthcare provider as a person and not just a skilled technician

(Mead & Bower, 2000)



MODELS OF PERSON-CENTERED CARE

PATIENT-CENTEREDNESS

- Three dimensions of patient-centeredness:
 - Principles
 - Enablers
 - Activities
- All of these dimensions of patient-centeredness are interrelated, all working together to develop a working relationship between the clinician and patient, and empowering the patient to be an active member in their healthcare.

(Scholl, Zili, Harter & Dirmaler, 2014)

PATIENT-CENTEREDNESS

- Principles:
 - Defining essential characteristics of the clinician
 - The importance of a collaborative clinician-patient relationship,
 - Viewing the patient as a unique person
 - Using a biopsychosocial perspective
- Enablers:
 - Communication skills of the clinician
 - Integration of medical and non-medical care
 - Teamwork and teambuilding
 - Patient access to care
 - Coordination and continuity of care.
- Activities:
 - Supporting the patient through providing information
 - Physical and emotional support
 - Involving the patient, as well as their family and friends, in their care
 - Empowering the patient to manage their health.
- Connected through therapeutic alliance

FRAMEWORK

- Comprise four constructs:
 - Pre-requisites (attributes of the healthcare provider)
 - Professional competence, developed interpersonal skills, commitment to the job, demonstrated clarity of beliefs and values, and knowledge of oneself
 - Care environment
 - Context in which care is delivered
 - Care processes
 - Working with patient beliefs and values, engagement, having a sympathetic presence, sharing decision-making and providing holistic care
 - Person-centered outcomes
 - Patient satisfaction with care, involvement in care, feelings of well-being and creation of a therapeutic culture

(Li & Porock, 2014)

PERSON-CENTERED CARE MODEL

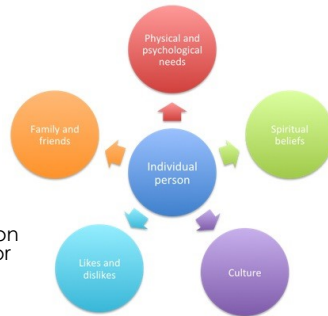
- Three components of person-centered care:
 - Holistic care
 - Collaborative care
 - Responsive care
- Therapeutic Alliance
 - Implementing each of these components is facilitated through the therapeutic relationship, an alliance between the patient and caregiver.



(Sidani & Fox, 2014)

- Comprehensive care that addresses all domains of health to promote health and prevent and manage injury and illness.

- Physical
- Psychological
- Behavioral
- Social
- Emotional
- Spiritual



- The goal is to address the needs of the person and not just the needs of the present injury or illness.

- Creating an atmosphere of shared decision-making and actively involving the patient in the management of their care.

- Offer treatment options rather than dictating care
- Facilitate discussion of these options
- Work with the patient to implement the agreed upon plan of care.

- Components:

- Develop a partnership
- Respecting patient decisions,
- Finding common ground
- Collaborating on problem solving,
- Negotiating treatment goals
- Sharing information
- Educating the patient
- Sharing power and responsibility.



- Understanding the patient's needs, preferences and values and responding to these by individualizing care based on needs, preferences and values of the patient.

- Components of responsive care include:

- Recognition of a patient's individual needs, experiences, and understanding of their care,
- Acknowledging the patient as an individual person rather than concentrating on their injury or illness,
- Taking into account the patient's preferences, perspectives and needs,
- Respecting the patient's values and right to autonomy
- Providing flexible, personalized care

PERSON-CENTERED CLINICAL EVALUATION



EVALUATION

- Begin with a comprehensive assessment
- Evaluate the issue that made them seek care
- Also evaluate their:
 - Cognitive
 - Social
 - Emotional
 - Psychological
 - Spiritual well-being



EVALUATION

- | | |
|--|--|
| <ul style="list-style-type: none"> • Greetings: <ul style="list-style-type: none"> • How are you doing? • What brings you to see me? • How can I help you? • Body Language: <ul style="list-style-type: none"> • How is your posture? • What is your face saying? • What is your physical proximity? | <ul style="list-style-type: none"> • History: <ul style="list-style-type: none"> • Cognitive/ psychological <ul style="list-style-type: none"> • How is this injury/illness affecting you? • Social <ul style="list-style-type: none"> • How's school going? • Has anyone been helping you? • Emotional <ul style="list-style-type: none"> • I know this may be a challenge, how are you handling it? • Spiritual |
|--|--|



CLINICAL EVALUATION

- Be respectful of the patient
 - Answer questions and concerns open and honestly
 - Take needs and preferences into account
- Share information in educating the patient about treatment options
 - Educate patient about injury or illness
 - Do you have any questions or concerns about what we have been discussing?
- Provide options for care
 - Which option would work best for you?
- Discuss and negotiate a plan of care
 - Involve patient in decision-making
 - Come to an agreement about treatment plan
 - How are you feeling about what I am telling you?
- Empower the patient to share responsibility for their care.
 - Create a sense of shared power and responsibility
 - What resources do you need to help you through this?




CLINICAL EVALUATION

- Implemented throughout the care process.
- Tying all of these components together is the alliance or therapeutic relationship developed between the patient and healthcare provider.
- This relationship is created by developing trust, respect and effective listening and communication.



CLINICAL EVALUATION

- How to be responsive to the patient:
 - Display open and welcoming body language
 - Provide emotional support
 - Provide physical support
 - Address the patient by name
 - Introduce yourself to the patient
 - Respect patient preferences and expressed needs
 - Display understanding and empathy for patient's perspective, feelings and needs
 - Provide flexible, personalized care
 - What else?



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Week 2: LM part 2- Treatment/rehabilitation plan. The second part of the learning module focused the treatment and rehabilitation plan. The PowerPoint presented in this section educated students about the World Health Organization's (WHO) International Classification of Functioning, Disability and Health (ICF) model (WHO ICF disablement model), communication between the patient and provider and continuing to foster a collaborative therapeutic alliance when developing a comprehensive treatment plan. This module also discussed encouraging the patient to take an active role in their care as well as including patient input in developing therapeutic goals. Another key portion of this section was introducing participants to the concept of motivational interviewing. This type of interviewing is not only useful for evoking a willingness to change behaviors among patients, but is also an effective method of eliciting information from patients in order to best tailor their care.

As part of this section, participants met with a panel of four student-athletes to discuss each student-athlete's injury experience. Three women's lacrosse athletes and one

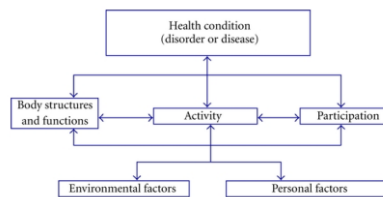
men's soccer player agreed to participate in the panel. Each panelist was at a different stage in their injury process. One women's lacrosse player had been misdiagnosed and had been to two specialists about her injury. Another women's lacrosse player was awaiting a diagnosis from a specialist she had been referred to by her doctor. The third women's lacrosse player had completed surgery for her injury and was back to full participation. The men's soccer player had suffered an ACL re-tear to the same knee after just returning to full participation. Each panelist was given the panel questions ahead of time in order to think about their responses (Appendix E).

Each panelist was given an opportunity to answer the questions presented to the group. Panelists were encouraged to share as much or as little information as they felt comfortable divulging while participants were encouraged to interact with the panelists and ask their own questions throughout the discussion. This activity met outside of class time in order to give panelists and participants more time to interact and to accommodate class schedules of the panelist. The discussion lasted an hour and thirty minutes.

Person-Centered Care: Treatment Plan

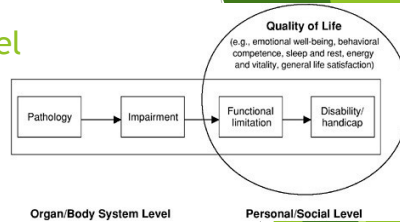
World Health Organization: International Classification of Functioning, Disability and Health

- Disabling model
- Represents a broad view of functioning and disability - across all domains of functioning in daily life (participation, activities, body functions and structures) - and requires an accounting for environmental factors that influence functioning.
- Classifies all the components of functioning and disability as well as the physical, social and attitudinal environmental factors affecting them.
- www.icfeducation.org



WHO ICF Disabling Model

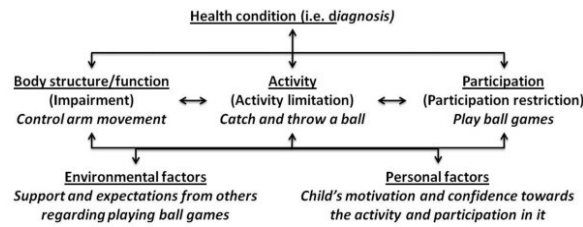
- 3 interrelated, but distinct components
 - Body Structure (Impairment)
 - Activity (Limitation)
 - Participation (Restrictions)
- Impairment
 - Anatomical, physiological or psychological abnormality
 - Ex. Pain, edema, decreased ROM, decreased strength
- Limitation
 - Limitations in completing a task or action by an individual
 - Ex. Inability to lift objects, squat, climb stairs, run, walk
- Restrictions
 - Reduced ability to perform a normal or typical role



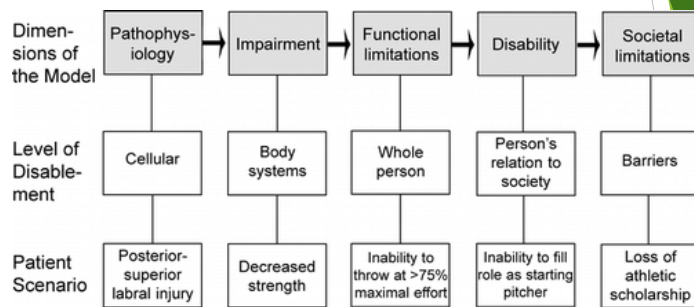
(Vela, 2008)

WHO ICF Disablement Model

- Disability
 - Occurs when there is a gap between a person's ability to complete a task or action and the demand of that task or activity
 - If a person's ability to participate in sport or perform ADLs is hindered by an injury, disability has occurred.



WHO ICF Disablement Model



People First Language

- Think about your own language
 - Become aware of negative words or phrases
- Listen to your colleagues
 - Have a conversation about creating a more positive and empowering environment
- Practice building this skill
 - Make sure spoken and written messages are person-centered and strength based

Dickinson & Marynick, 2017

People First Language	Language to Avoid
Person with a disability	The disabled, handicapped
Person without a disability	Normal person, healthy person
Person with an intellectual, cognitive, developmental disability	Retarded, slow, simple, moronic, defective or retarded, afflicted, special person
Person with an emotional or behavioral disability, person with a mental health or a psychiatric disability	Insane, crazy, psycho, maniac, nuts
Person who is hard of hearing	Hearing impaired, suffers a hearing loss
Person who is deaf	Deaf and dumb, mute
Person who is blind/visually impaired	The blind
Person who has a communication disorder, is unable to speak, or uses a device to speak	Mute, dumb
Person who uses a wheelchair	Confined or restricted to a wheelchair, wheelchair bound
Person with a physical disability	Crippled, lame, deformed, invalid, spastic
Person with epilepsy or seizure disorder	Epileptic
Person with multiple sclerosis	Afflicted by MS
Person with cerebral palsy	CP victim
Accessible parking or bathrooms	Handicapped parking or bathroom
Person of short stature	Midget
Person with Down syndrome	Mongoloid
Person who is successful, productive	Has overcome his/her disability, is courageous

Patient-Provider Communication

- ▶ Person-centered communication founded on:
 - ▶ Altruism
 - ▶ Place patient needs above the provider's needs
 - ▶ Compassion & caring
 - ▶ Exhibit compassion, caring and empathy
 - ▶ Promote active involvement in patient in their own care
 - ▶ Integrity
 - ▶ Demonstrate integrity in all interactions with patients
 - ▶ Communication
 - ▶ Communicate in a culturally appropriate manner with all involved in the patient's care
 - ▶ Cultural competence
 - ▶ Identify, respect and act with consideration for the patient's differences, values, perspectives and expressed needs



(Conrad, Cavanaugh & Konrad, 2012)

Patient-Provider Communication

- ▶ Effective person-centered communication involves a variety of skills and attitudes, including:
 - ▶ Ability to listen
 - ▶ Curiosity and gentle inquiry
 - ▶ Being open to the views and perspectives of the patient and their family
 - ▶ Ability to convey information in a clear, culturally attuned and respectful manner
- ▶ Must be able to elicit and accommodate the need and desires of the patient
- ▶ Effective communicators can adapt their skills and rarely assume full knowledge of the experiences of the patient
 - ▶ Ask, don't assume

(Conrad, Cavanaugh & Konrad, 2012)

Patient-Provider Communication

- | | |
|--|--|
| <ul style="list-style-type: none"> ▶ Ineffective <ul style="list-style-type: none"> ▶ Standing over the person ▶ Pleasant, but impersonal or rushed ▶ Clinical response versus responding to the person | <ul style="list-style-type: none"> ▶ Effective <ul style="list-style-type: none"> ▶ Sitting and taking time to listen ▶ Refer to the patient by name ▶ Prompting elaboration of responses ▶ Calm ▶ Conveyed interest in patient's concerns ▶ Acknowledge patient's life experience and individual needs and values ▶ Treat patient with dignity |
|--|--|



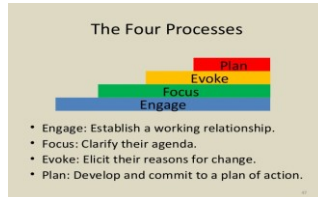
"The doctor will see you now — I can't promise that he'll talk to you, but he'll see you."

(Conrad, Cavanaugh & Konrad, 2012)

Patient-Provider Communication

► Motivational Interviewing

- Empathy
- Roll with resistance
- Support the patient in self-efficacy
- Elicit their intent to change and what they need to do to change (Miller, 2016)



MOTIVATIONAL INTERVIEWING	
R	RESIST telling them what to do: <i>Avoid telling, directing, or convincing your friend about the right path to good health.</i>
U	UNDERSTAND their motivation: <i>Seek to understand their values, needs, abilities, motivations and potential barriers to changing behaviors.</i>
L	LISTEN with empathy: <i>Seek to understand their values, needs, abilities, motivations and potential barriers to changing behaviors.</i>
E	EMPOWER them: <i>Work with your friends to set achievable goals and to identify techniques to overcome barriers.</i>

Developing a Person-Centered Treatment Plan

- Be sure patient understands their injury and the expected course of treatment
- Be sure the patient understands how their treatment plan will affect their healing as well as how their participation will also affect this
- Take into consideration physical, social and psychological implications

Developing a Person-Centered Treatment Plan

- Physical
 - Test functional ability, not just segments (i.e. MMT, goniometer measures)
 - Report both patient-reported and clinician-reported restrictions
- Social
 - How is this affecting the patient's social activities, work, school, etc.?
 - Do they have social support?
- Psychological
 - How are they coping? i.e. how are they responding to the injury?
- These effects are mediated by the patient and their interaction with the environment (Vela, 2009)
 - Past experiences, age, gender, etc.

Developing a Person-Centered Treatment Plan

- ▶ Disability is typically transient
 - ▶ As they progress, continue to monitor patient physically, psychologically and socially
- ▶ Setting Goals
 - ▶ Realistic, attainable, meaningful
 - ▶ Allow patient to play a role in determining goals that are important to them
 - ▶ Associated with greater rehab adherence, goal attainment, patient satisfaction, greater sense of control over rehab and improved clinical outcomes (Cheng et al., 2016)

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- ▶ www.icfeducation.org

Week 3: LM part 3- Interprofessional referral. The third part of the learning module focused on the referral process. The PowerPoint presented in this section focused on interprofessional communication and coordination of care on behalf of the patient and using informatics to support communication and continuity of care. Discussions centered on the importance of building interprofessional relationships with other healthcare professions and understanding participant's experiences engaging in interprofessional collaboration. Also discussed was understanding patients' viewpoints when it comes to being referred to a different healthcare provider and working to ensure that the patient is prepared and supported during the referral process.

As part of a class activity, two athletes came to class to role play with the participants. Participants were placed in two-person groups and were each presented with one case scenario. In each scenario, the participants were asked to talk with an athlete and a coach about the athlete's injury and the need to refer them to another healthcare professional. One of the athletes played the athlete while the instructor acted as the coach in each scenario. Having the athletes come and act as characters in the role play brought a different dimension to the activity. The athletes brought their unique experiences to the role play and participants were able to ask questions about how those experiences affected them. Discussion followed about what was done well, what was not done well, and the best way to handle each situation.

Person-Centered Care: Interprofessional Referral

Person-Centered Referral



Interprofessional Collaboration

- ▶ Working across healthcare professions to cooperate, collaborate, communicate and integrate care in teams to ensure that care is continuous and reliable (IOM, 2003)
- ▶ Learn how to...
 - ▶ Work in interprofessional teams
 - ▶ Foster open communication
 - ▶ Demonstrate mutual respect
 - ▶ Engage in shared decision making (Boykin, 2014)
- ▶ What are your experiences with interprofessional collaboration?

Interprofessional Collaboration

- ▶ Teamwork
 - ▶ Being able to be both a leader and a team member
 - ▶ Knowing the barriers to teamwork
- ▶ Roles and Responsibilities
 - ▶ Understanding one's own roles, responsibilities and expertise and those of other types of health workers
- ▶ Communication
 - ▶ Expressing one's opinions competently to colleagues
 - ▶ Listening to team members

Interprofessional Collaboration

- ▶ Learning and critical reflection
 - ▶ Reflecting critically on one's own relationship within a team
 - ▶ Transferring interprofessional learning to the work setting
- ▶ Relationship with and recognizing the needs of the patient
 - ▶ Working collaboratively in the best interests of the patient
 - ▶ Engaging with patients, their families and communities in care management
- ▶ Ethical practice
 - ▶ Understanding the stereotypical views of other health workers held by self and others
 - ▶ Acknowledging that each health workers' views are equally valid and important (Gilbert, Yan & Hoffman, 2010)

Initiating the referral

- ▶ Establish patient's willingness to seek a referral
- ▶ Communicate what the patient should reasonably expect
- ▶ Assist patient in...
 - ▶ Making the referral appointment
 - ▶ Having all paperwork needed
 - ▶ Make sure they have appropriate transportation

Referral- Communication with the coach

- ▶ Explain injury or illness to coach
- ▶ Explain reason for referral
- ▶ Answer any questions
- ▶ Maybe have conversation with patient present
 - ▶ Minimize miscommunication
 - ▶ Makes sure everyone is on the same page

Referral- Communication with healthcare providers

- ▶ SBAR (Situation-Background-Assessment-Recommendation)
 - ▶ Situation
 - ▶ Briefly describe the current situation
 - ▶ Give a clear, succinct overview of relevant issues
 - ▶ Background
 - ▶ Briefly state the relevant history
 - ▶ What got us to this point?
 - ▶ Assessment
 - ▶ Summarize the facts and give your best assessment
 - ▶ What's going on?
 - ▶ Recommendation
 - ▶ What actions are you asking for?
 - ▶ What do you want to happen next?

(Boykins, 2014)

Informatics

- ▶ Core competency for all health professional's education and incorporates mastery of new communication technologies including integrating and coordinating care (IOM, 2003)
- ▶ Use of information and technology to...
 - ▶ Communicate
 - ▶ Manage knowledge
 - ▶ Mitigate error
 - ▶ Support decision making (Boykins, 2014)

Informatics

- ▶ Health Information Technologies (HIT) or electronic health (E-health)
- ▶ Access to care over the internet, by telephone, or other means
- ▶ E-health provides...
 - ▶ Access to online communities and support groups
 - ▶ Health information
 - ▶ Health self-management tools
 - ▶ Personal health records
- ▶ Electronic Medical Records (EMR)/ Electronic Health Record (EHR)
 - ▶ Allows patients access to their health information
 - ▶ Aids collaboration and communication with other health care providers (Boykins, 2014)

Homework

- ▶ Write an referral in ATS for your patient.
- ▶ Use the SBAR outline to organize your notes that will be sent to the other healthcare provider.

Class Activity

- ▶ Practice talking to the patient about their injury or illness and why you want to refer them to another healthcare provider
- ▶ Practice communicating with them what they can expect and answer any questions or concerns they may have
- ▶ Use each other or search resources if you are not sure what to tell your patient what they can expect
- ▶ Demonstrate your communication to the class

Activity

- ▶ Case scenarios communicating with patient and coach
 - ▶ Referring patient to rule out fracture following an ankle sprain
 - ▶ Referring a patient with a possible season ending injury
 - ▶ Referring a patient with an injury that will determine ability to play based on patient pain tolerance
 - ▶ Referring a patient with disordered eating
 - ▶ Referring a patient for a second opinion

Case study #1

- ▶ Patient: 19y/o male lacrosse player with a grade 2+ ankle sprain. Has been in a boot you provided for the past two days, but still needs crutches to get around. Your patient has requested to get an x-ray because their parents want them to. You do not think they need one.
- ▶ With your partner, practice talking with the patient about the referral process as well as the coach
- ▶ What are considerations when having this conversation? How do you talk to the patient about this situation? How do you talk to the coach about the situation? Should you refer them? To whom do you refer them?

Case study #2

- ▶ Patient: 21 y/o female soccer player with a possible right ACL tear. She is about to break the goal scoring record with just one more goal this season. There are two games left but she is unable to walk on her own without crutches and is one week post-injury.
- ▶ With your partner, practice talking with the patient about the referral process as well as the coach
- ▶ What are considerations when having this conversation? How do you talk to the patient about this situation? How do you talk to the coach about the situation? Should you refer them? To whom do you refer them?

Case study #3

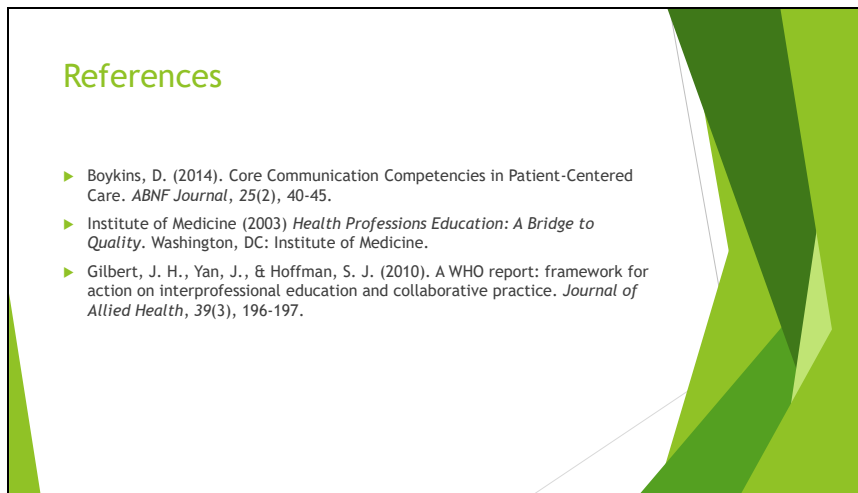
- ▶ Patient: 20 y/o male football player with a left shoulder SLAP tear. The patient just earned a starting spot as a wide receiver and is worried about losing his spot. Coaches need him in this spot
- ▶ With your partner, practice talking with the patient about the referral process as well as the coach
- ▶ What are considerations when having this conversation? How do you talk to the patient about this situation? How do you talk to the coach about the situation? Should you refer them? To whom do you refer them?

Case study #4

- ▶ Patient: 18 y/o female cheerleader with a right radial fracture. She broke her arm doing a back spring and has been showing signs of weight loss, increased injuries and noticeable lethargy. You are concerned about a possible eating disorder.
- ▶ With your partner, practice talking with the patient about the referral process as well as the coach.
- ▶ What are considerations when having this conversation? How do you talk to the patient about this situation? How do you talk to the coach about the situation? Should you refer them? To whom do you refer them?

Case study #5

- ▶ Patient: 19 y/o female lacrosse player with a possible MCL tear of her right knee. She injured her knee while playing in a game. She planted her foot, faked right and then turned to go left and felt her knee give way. She had pain and some swelling initially, but now presents with a positive valgus test and negative patellar apprehension, anterior drawer and meniscus testing. She saw the team orthopedist, who diagnosed her with a patellar subluxation, but refused to give her a brace. You would like a second opinion.
- ▶ With your partner, practice talking with the patient about the referral process as well as the coach.
- ▶ What are considerations when having this conversation? How do you talk to the patient about this situation? How do you talk to the coach about the situation? Should you refer them for a second opinion? To whom do you refer them?



Week 4: LM part 4- Return to participation. Learning module part four focused on discharge and return to participation. This section of the module focused on preparing the patient, both physically and psychologically, for return to play and discussed patient self-care and management following discharge from medical care. It emphasized continued monitoring of the patient’s overall functioning even after they are back to full participation.


The final class for this learning module was a class discussion of the book, *In Shock*, by Dr. Rana Awdish. Throughout the study, participants read one section of the book each week. To guide reading, participants were given reading questions to respond to for each chapter of the book (Appendix F). In the book, Dr. Awdish writes about her experience as a critically ill patient and as a physician. The book focuses on PCC and presents a first-hand account of what it means to be a patient and a person within the healthcare system. It also takes a look at how healthcare providers can affect the health and wellbeing of their patients through their interactions with them. The class discussion

focused on identifying aspects of PCC in the book and identifying how it affected the care of the patient. Participants were able to make connections with the book and engaged in a lively discussion of themes, concepts and events in the book.



PERSON-CENTERED CARE: RETURN TO PARTICIPATION



- 
- ### RETURN TO PARTICIPATION
- Ultimate goal of treatment and rehabilitation is return to normal participation
 - Patient may be ready physically but not psychologically
 - Tension can lead to disruption of coordination producing unfavorable conditions for potentially new or current injuries
 - Can lead to apprehension and development of a self-fulfilling prophecy
 - How do we determine if a patient is ready to return to participation?



RETURN TO PARTICIPATION

- How the patient views their responsibility in contributing to an injury or illness affects how they react to return
- How was the injury caused?
 - Due to poor conditioning?
 - Unforeseen accident?
 - Blame someone else for the injury?



RETURN TO PARTICIPATION

- Disability is typically transient
- Cannot assume disability is gone once they return to normal activity
 - May be physically ready (i.e. no physical impairments or limitations)
 - May still be having psychological and social issues.
 - How are they functioning outside of their sport?
- Continue to monitor patient even after full return to play



RETURN TO PARTICIPATION

- Explain the process for return to participation
 - Explore patient's expectations for return to participation
 - Help patient understand expected outcomes
 - Set realistic expectations, continue goal setting
- Progress in small increments
 - Progress skills away from team, small group practices (non-contact), full-team practice (non-contact/contact)



RETURN TO PARTICIPATION

- Allow the patient to voice concerns and apprehensions
 - Actively listen to the patient, may need to interpret underlying messages
 - Let them fully explain
 - Pay attention to body language
 - Determine if the patient's concerns are manageable or may require further consultation with a professional better trained to manage stress




RETURN TO PARTICIPATION

- Return to sport participation is not the definitive result of athletic training care (Vela, 2009)
- Return to full functioning should be the ultimate result of care
- Continue to monitor the patient even after full return to participation to ensure they are functioning normally in everyday life and not experiencing further disfunction



CLASS ACTIVITY

- What have your experiences been like coming back from an injury?
- What have you seen your patients go through as they return from an injury?
- How will you continue to monitor their progress as they return to full participation?



HOMEWORK

- Write a discharge note for your patient.
- Describe where they are and why they are being discharged from care.

APPENDIX E

STUDENT-ATHLETE INJURY EXPERIENCE PANEL

Student-Athlete Panelists:

- Panelist 1: Female. Out of her sport due to undiagnosed back pain, suspected stress fracture based on history of stress fractures
- Panelist 2: Female. Currently rehabilitating a grade 2 MCL sprain
- Panelist 3: Female. Post-surgical bilateral compartment syndrome, returned to full participation
- Panelist 4: Male. Post-surgical ACL reconstruction, second surgery for same knee. Currently in rehabilitation.

Panelist Questions:

1. Please describe your injury, how it started, it's progression and where it is now.
2. How would you characterize this injury experience? How did it affect you overall, not just on the field?
3. What are things your healthcare providers (this includes your AT) did well?
4. What are things you wish they had done better?
5. How did your healthcare providers affect your injury experience?
6. What did you learn about yourself during this experience?

APPENDIX F

IN SHOCK READING QUESTIONS

Section I: Ch. 1-3

Ch. 1

1. How would you have responded if someone you loved was experiencing extreme abdominal pain?
2. What were your thoughts on how Dr. Awdish was triaged in the hospital?
3. Do you consider the health and well-being of the baby or the patient to be a higher priority? How might this affect your judgement?
4. What are your thoughts on Dr. Awdish's out of body experience?

Ch. 2

1. How would talking to the patient and explaining what happened, even if it was bad news, have affected the patient? If you were in her position, what would you have wanted to know?
2. How do we as athletic trainers take calculated risks?
3. What are your thoughts on the hierarchical training system for doctors that Dr. Awdish described? (p.46-47)
4. What are your thoughts on the interaction between Dr. Awdish, as a patient who lost her baby, and the obstetrics nurse?
5. How do our personal dogmas and beliefs affect how we interact with patients and advise them?
6. Dr. Awdish states, "We were trained to ask questions that steered people to a destination... We were trained to value efficiency over cultivating a relationship through trust and disclosure. We aren't trained to value the patient's story." Do you agree or disagree with this statement based on your current training as an athletic trainer?

Ch. 3

1. Not all of our decisions are life and death, but how do our decisions affect our patients? How do they affect their trust in us and our ability to effectively treat them?
2. Have you every presented a patient with options for their care and allowed them to make the final decision? Why or why not?

3. Dr. Awdish states, “the emotions of patients are encoded in their behavior (p.69).” What does this statement mean to you? Have you ever known someone who was behaving even a little strangely and didn’t find out until later why they were acting that way? How did this affect how you notice people’s behavior?
4. Put yourself in Dr.Awdish’s position following her CT scan. How would you have reacted to the plan the doctors had laid out for her as well as her lung issue?

Section II: Ch. 4-6

Ch. 4

1. Following her first day of physical therapy, Dr. Awdish writes, “I tried to integrate what had just happened into who I believed myself to be (p.80).” What did you think of this statement? Did you even notice it? How can this feeling apply to athletes who have suddenly become patients?
2. Following her first day of physical therapy, Dr. Awdish made a cognitive appraisal of her situation. What was her assessment of her situation? Did she view it as a challenge or a threat? How do you think this will affect her recovery?
3. How do think her husband, Randy, has affected her recovery? Do you think she could have gotten to where she is now without him?
4. There are times when we question whether or not it is wise to return a patient to their sport, despite the pressures from outside sources, such as coaches and the patients themselves. Dr. Awdish writes, “there were plenty of fear-based reasons, the what-ifs still haunted us, but they were easily identified as worries rather than risks (p.88).” How would you know if a patient is truly ready to return to play and not just wanting to? Do you have a mental check list that they must satisfy in order to return?
5. Dr. Awdish writes, “I had lost something of myself...I had lost my sense of myself as a strong, capable, independent person (p.89).” How can this sentiment be shared by athletes who have gone through a serious injury? How can it affect their recovery and willingness to engage in rehabilitation?

Ch. 5

1. What were your thoughts on Dr. Awdish’s return home? How does her experience parallel that of other who have gone through surgery or some other life-altering injury or illness? How do you think this may affect them overall?
2. What are your thoughts on Dr. Awdish’s tone and expressed feelings throughout the first part of the chapter? Would you have reacted similarly to these situations? If not, how do you think your thoughts and reactions would have differed?

3. Dr. Awdish describes her withdrawal from the opioids she had been taking. How might this relate to how hard it can be to manage addiction, both physiologically and psychologically?
4. Pain can be physical or mental, but it has control. How can pain, or any feeling, control us? How did Dr. Awdish gain control over her pain?
5. How does spirituality play a role in healing? Are hope and miracles reasonable wish for when facing hard to handle situations?

Ch. 6

1. What were your thoughts on how Dr. Awdish responded to her residents and to her patients in this chapter? Do you think her approach represents a person-centered approach? How can you learn from her and apply her approach to your own practice?

Section III: Ch. 7-9

Ch. 7

1. How does our training differ from medical training? Are there any similarities? Do you think we are better or worse at relating to our patients?
2. Place yourself in Dr. Awdish's shoes when she receives the news about the hepatic adenomas and is asked to return to the hospital. How would you have responded? What would be going through your mind?
3. Compare and contrast how the surgical nurse practitioner and the post-op nurse interacted with Dr. Awdish. Which displayed person-centered care?
4. What did you learn from the surgical nurse practitioner? What are some things she did that you could emulate in your own practice?
5. In post-op, Dr. Awdish is labeled as "difficult." How does labeling patients affect their care?

Ch. 8

1. Dr. Awdish states, "I had to acknowledge that, despite my best efforts, I would still sometimes fail." What does this statement mean to you? Is it ok to fail? What feelings come along with a sense of failure? How would you manage these feelings?
2. Dr. Awdish speaks about the emotional distance physicians are trained to maintain, both from themselves and their patients. What are your thoughts on this message that is given to them? How does not acknowledging one's emotions and feelings affect a person? How can acknowledging them and finding a way to manage them affect a person?

3. In learning to shut down emotions early on in their careers, doctors are indoctrinated or acculturated into their profession. How have you been acculturated into athletic training? Are there things that you have changed about yourself or how you approach athletic training since joining the program?
4. Healthcare workers are, by design, caregivers. We give our time and focus to the care of others. But many times, we pour so much into our work and our patients, we don't leave time to care for ourselves. How can we better take care of ourselves? How can we create safe spaces to feel and understand the emotions we experience?
5. Reread pg.174, the last page of chapter 8. Did anything she talked about here strike you? How do we remain present through our patient's suffering? Do you consider your patients to be suffering? Why or why not?

Ch. 9

1. At the beginning of Ch.9, Dr. Awdish talks about new iterations or new versions of the self constantly developing. How do we continue to develop ourselves? You are not the same person you were even a year ago. In what ways do you want to continue to grow and develop yourself, both personally and professionally?
2. How do you identify with yourself? Does your perception of who you are change based on different factors, such as in different situations, different environments, different relationships or different jobs?
3. Dr. Awdish states that "relationships can shape us, that we grow in the shape and form of the cast they generously supply (p.179)." How do your relationships shape you? Do they help you become the person you want to be, or keep you where you are? How do our relationships with patients help shape them? What happens when we support our patients? What happens when we don't support our patients?
4. While visiting the obstetrician's office, the doctor there talks about wanting to cut back his hours and find some semblance of balance. How do we find balance? How do we manage our work and home lives so that we do not become overwhelmed and can lead satisfying professional and personal lives?
5. Dr. Awdish quotes the "Birthday Girl," 'No matter what happens to a person, he or she will always be who they were meant to be (p.186).' What does this quote mean to you? Do you find it comforting like Dr. Awdish?
6. Athletic training, like many healthcare professions, has a high rate of alcoholism and many leave the profession early. How can we, as a profession, find ways to increase quality of life among athletic trainers? Meaning, how can we be athletic trainers and still find productive ways to find outlets for our stress?
7. Many athletic trainers work in isolation. We may be the only one responsible for one location or several teams. We often lack resources to do our job well and

often have our decisions and expertise questioned by those who know even less. How do athletic trainers come together as a community to help one another? How do we create a safe space for shared disclosures to allow us to breathe and reenter the world?

8. At the end of the chapter, Dr. Awdish “finds her voice” and is able to advocate for herself. How do we help our patients find their voices and learn to advocate for themselves? How do we help them learn how to communicate what is happening to them, even when they are scared to tell us?

Section IV: Ch. 10-end

Ch. 10

1. When Dr. Awdish delivers her son, he is in the NICU for a few weeks. During this time, there are several times the nurses have to “revive” him when he forgets to breathe. She comments that she wishes they wouldn’t make certain comments under their breath as it adds to her anxiety and fear. How can little comments we make, often when we think no one is listening, impact those around us? How can we be more mindful of what we say and the impact it can have?
2. Dr. Awdish talks about how the transparent, open communication between herself, the doctors and the nurses created a “cocoon of safety” for her. How can this communication and awareness of the expected outcomes of certain situations help relieve anxiety for the patient and foster trust?

Ch. 11

1. What are your thoughts on how Dr. Awdish and her husband have chosen to raise their son? How do you think these tactics will ultimately impact him?
2. On p.211, Dr. Awdish talks about her continued pain and return visits to the hospital. She discusses how healthcare providers responded to her when she was preemptive and sought treatment at the first sign of trouble and how that ultimately affected when she would seek treatment...often when it was too late. How can our response to patients impact their willingness to seek treatment? Who else might impact a patient’s willingness to seek treatment? How can we be proactive and make it ok for them to seek treatment?
3. Dr. Awdish writes, “We listen imperfectly, through a fog of ghosts and competing priorities (p.217).” What does this statement mean to you? What ghosts and competing priorities do you bring to your clinical practice? How can they impact how you treat your patients?
4. In her relapse and sepsis, Dr. Awdish uses meditation to calm herself and seek clarity in the situation? What are your thoughts on meditation? How can this be used within our clinical practice?

5. Dr. Awdish reflects on the use of humor as a coping mechanism for stress. Can humor be a useful tool for alleviating stress? When should it be used? What are some other strategies that may be more useful in certain situations?
6. Reflect on the empathy used by the resident to help reassure Dr. Awdish and make her feel more secure. She breaks down the components of his empathetic statements. How can you use this technique of empathizing with your patients?
7. Dr. Awdish talks about a cancer patient and how they chose her treatment options. Identify the different components of person-centered care used in this situation (p.230).
8. Dr. Awdish writes, “That orientation- turning together to face what our patients face- is what allows us to not only bear witness, guide our patients and treat disease, but also to bring more compassion to each moment, a compassion that extends even to ourselves (p.233).” Comment on this statement and the message she sends in pages 231-233. What does it mean to you? Do you agree or disagree?

Ch. 12

1. Dr. Awdish talks about confirmation bias in reference to when her son broke his elbow. What is confirmation bias? How can it affect our clinical decision making? How can we use the pain and suffering we go through ourselves to improve how we treat our patients? Is there a lesson to be learned in each new situation, no matter how painful? Have you ever been thankful for having gone through a painful situation?
2. In one of her stories, Dr. Awdish quotes one of her former patients saying, “I am your patient, and as such, I can’t hope to be any more well than my doctor (p.245).” What do you think he means by this statement? Can you effectively care for your patients if you aren’t taking care of yourself?
3. How do we come together as a community to create change? Think of the situations you are facing that you feel need to be changed. What are the questions you need to find answers to in order to promote change? How can you make a change?

APPENDIX G

SURVEY RESULTS

	<u>Mean</u>	<u>Std Dev</u>	<u>t</u>	<u>Sig</u>
Holistic Care				
I ask about a patient's physical domains of health (i.e. pain, strength, flexibility, etc.	0.00	0.47	0.00	1.00
I ask about a patient's psychological domains of health (i.e. emotions, state of mind, feelings about the injury, etc.)	-0.70	1.70	-1.30	0.23
I ask about a patient's social domains of health (i.e. housing, access to care, work, family influence, etc.)	-1.90	1.29	-4.67	0.001*
I ask about a patient's spiritual domains of health (i.e. what are their spiritual and religious beliefs and how they may influence care)	-1.00	0.94	-3.35	0.008*
I assess a patient's understanding of their injury or illness	-1.10	1.37	-2.54	0.032*
I assess a patient's treatment goals	-0.80	0.79	-3.21	0.011*
I identify concerns a patient may have about their treatment plan	-0.70	1.42	-1.56	0.15
I adjust a patient's treatment plan based on their needs	-1.30	1.16	-3.55	0.006*
I provide emotional support to a patient	-0.80	1.62	-1.56	0.15
I provide information regarding injury prevention to the patient	-1.30	1.25	-3.28	0.009*
I provide information on injury management to the patient	-0.90	1.29	-2.21	0.054*
Collaborative Care				
I provide information to a patient about their injury or illness in a complete and unbiased way	-0.90	1.20	-2.38	0.041*
I am respectful of a patient's preferences and beliefs about their injury or illness	-0.30	0.48	-1.96	0.08
I promote discussion with the patient to make sure they understand their injury and proposed treatment plan	-1.30	1.16	-3.55	0.006*
I provide information to the patient about treatment options and self-management strategies	-1.80	1.03	-5.51	0*
I take patient preference and needs into consideration when developing their treatment plan	-1.60	1.17	-4.31	0.002*
I answer questions a patient may have about his/her care	-0.40	0.84	-1.50	0.17
I ask about a patient's preferences for treatment or self-management	-1.60	1.43	-3.54	0.006*

When using a treatment for the first time, I explain to the patient what to expect and the expected outcome of the treatment.	-0.70	0.68	-3.28	0.01*
I check to make sure the patient and I are in agreement about their treatment plan	-1.80	1.40	-4.07	0.003*
I provide instructions to the patient on how to perform therapeutic exercises and home treatment plans	-1.20	1.03	-3.67	0.005*
I help the patient, as needed, with their treatment plan	-0.70	0.82	-2.69	0.025*
I explore with the patient who he/she wants to be involved in his/her care	-2.10	1.45	-4.58	0.001*
I incorporate the patient and family in patient care	-1.50	1.27	-3.74	0.005*
Responsive Care				
I respond to the patient's needs, beliefs, values and preferences	-1.20	1.48	-2.57	0.03*
I adjust a patient's treatment plan over time in response to the patient's needs and preferences	-1.10	1.10	-3.16	0.012*
I check in with the patient about how they are coping with their injury	-0.80	1.03	-2.45	0.037*
I take time to answer patient questions	-0.50	0.71	-2.24	0.052*
I adjust a patient's treatment plan based on how they are coping physically with their injury or illness	-1.00	0.67	-4.74	0.001*
I adjust a patient's treatment plan based on how they are coping psychologically with their injury or illness	-1.90	1.10	-5.46	0*
I adjust a patient's treatment plan based on how they are coping socially with their injury or illness	-1.60	1.71	-2.95	0.016*
I adjust a patient's treatment plan based on how they are coping spiritually with their injury or illness	-1.50	1.72	-2.76	0.022*
I make sure the patient has what he/she needs with regards to his/her health care	-0.50	1.43	-1.10	0.30
I make sure the patient has what he/she needs with regards to community or university resources	-1.10	1.66	-2.09	0.07
I comfort the patient when needed.	-0.60	1.08	-1.77	0.111*
n=10, df=9, $\alpha=.05$, *P<.05				

APPENDIX H

SHORT ANSWER QUESTIONS RESULTS

Pre-study survey:

1. *Please describe what person-centered care means to you, or looks like to you, in an athletic training setting.*

- P1: Looking at a patient as a whole person and not just an injury. Taking health care to a personal level
- P2: I believe patient centered care means being interactive with the patient as a health professional. I also believe it means caring for the patient and not just telling them what we believe is best for them but them telling us what they believe would be beneficial for them
- P3: Person-centered care means the one on one connection the athletic trainer has with their patient when caring for them, and having their best interest in mind.
- P4: Person-centered care, to me, is making sure that the patient is put first. It's making sure that the patient fully understands what they are going through and what they are going to go through in regards to their injury. Also providing support when they want/need it.
- P5: In an athletic setting, person-centered care is when the AT is concerned with the patients' needs.
- P6: Care that meets the needs of patients based on their physical or mental needs.
- P7: What person - centered care looks like to me in an athletic training setting is nice calming area where the athletic trainers caring for their athletes with anything he or she might need help with physically, mental, spiritually, and social.
- P8: Person-centered care is incorporating and encouraging the patient to be active in their health care.
- P9: Person-centered care to me means to put the needs of the patient first. Listening to the patient and not making the patient feel as if they are not really in pain.

P10: Person-centered care means to me that treatment for each individual person is going to be and will be different, especially when it comes to different situations.

2. *How do you currently incorporate person-centered care into your clinical practice?*

P1: I treat everyone differently based on how they respond to their injury and me

P2: It is incorporated by just simply asking questions like how are you doing and how are you feeling since _____ happens

P3: Right now my person-centered care is not the best, but I try to make my patient as comfortable as possible when evaluating them

P4: I make sure the patient understands their rehab so they know what they should do to improve their injury. Sometimes I also ask how they are doing. I need to work more on person-centered care.

P5: I make sure I answer or find someone who can answer any questions the patient has. If the patient is feeling discouraged during any activity in the ATR, I try to motivate and comfort them.

P6: I always consider the patient before the treatment. What I mean by that is that is I will ask the person when the best time for them to do treatment or rehab is for them and let them tell me when they can come in. Working around the patient is better than telling them when to come in.

P7: How I currently incorporate person-centered care into my clinical practice is i always ask the athlete how they are doing, how is the injury.

P8: I try and engage with all the patients and ask them questions and listen to what they have to say. And keep what they say in mind while dealing with them and their injury(s).

P9: I incorporate person-centered care by listening to the patients concerns. I try to look the patient in the eyes instead of writing while they are talking. I try to not blow off what the patient is feeling as nothing, and give all the patients the same treatment.

P10: By taking the time to talk to each individual person and find what they specifically need.

Post-study survey:

1. *Please describe what person-centered care means to you, or looks like to you, in an athletic training setting.*

P1: Person centered care is taking a look at the entire person, their body, mind, and emotion. With this approach and athletic trainer would look at how a patient feels about their injury and life in general, they would see if they need any accommodations and their daily life as well as helping them with the physical struggles of being hurt.

P2: Person-centered care is taking the patients consideration for what they want and how they feel. In Athletic training person-centered care is having open communication with athletes. I believe patient-centered care is how you show empathy towards patients.

P3: In the athletic training setting person-centered care means a lot and it plays a big role in the way our athletes form relationships with us, as their athletic trainer. As an athletic trainer I feel like it is very important to put the patient first, not only their physical needs, but also their emotional and mental needs. A lot of times, what is going on in a patient's life can have a big impact on how their recovery will go, and if the athletic trainers do not see this part of their athlete, are they really doing their job correctly?

P4: To me, person-centered care is a way of going about caring for patients with their best interest and doing what the patient wants. It's about making sure they understand what's happening, answering and making them feel able to ask any questions they have, making sure they are comfortable with anything, and getting everything that they want to help them when it comes to their mental and physical health.

P5: To me person-centered care is when the athletic trainer or healthcare professional is concerned with the patient's physical, mental, and social well-being. As an athletic trainer, you have to recognize if the patient is struggling mentally too. Person-centered care in an athletic training setting includes asking

your patient how he or she is doing and actually understanding how your patient is feeling and how to accommodate them.

- P6: I believe person centered care is about making sure you value every athlete you come across in the athletic training setting. What person centered care means to me is being able to help the athlete receive the care they need while also including their personal needs.
- P7: What person centered care means to me is caring for how to person feels and how they are mentally, spiritually, emotional, and physically. What this looks like to me in an athletic training setting is the athletic trainers taking time to interacted with their athletes to make sure they are handling their injury with everyday activities and how they are handling everything mentally.
- P8: Person centered care is incorporating how a person feels physically, psychologically, spiritually, and emotionally into their health care and treatment plans.
- P9: In my opinion, person-centered care in an athletic training setting means to put the patient's care above my own ego. Person-centered care means exactly listening to the patient and letting them know that their concerns really matter. I believe patient-centered care is to make the patient feel involved through their whole treatment process. I believe a patient should leave me and be able to confidently explain to anyone what exactly is wrong with them. A lot of times I hear patients come from the doctor and have no clue what was said to them and they leave the doctor's office just as confused when they leave out as they were when they went in. Patient-centered care is understanding the patients do not have the same medical background as we have and still being able to communicate to the patients efficiently.
- P10: Person-centered care to me is taking the time to talk to the patient and understand their problems both physically and mentally. This is being able to converse to them solely and focus on your discussions with them and putting off others during that conversation.

2. *How do you currently incorporate person-centered care into your clinical practice?*
- P1: I incorporate person centered care into my clinical practice by asking patients how they've been coping with their injury if they need any accommodations and generally checking on their mental status by seeing how they interact with other people as well as how they interact with me and asking questions to find out how they truly feel.
- P2: I incorporate person-centered care in the clinical setting by supporting patients. I also help treat and support patients in reaching their goals.
- P3: Currently I have gotten a lot better incorporating person-centered care into my clinical practice. I am trying to get better at actually having a conversation with the patient instead of just going down a check list of things that I need to do, instead of actually listening to the patient and their needs.
- P4: I currently make sure I incorporate person-centered care during hours in the AT room by checking in with the person, making sure they are okay, and actually listening to their response. I also make sure that I am aware of what the person is doing for treatment and how they are physically and mentally responding to it.
- P5: When I am doing an evaluation on a patient I always ask them how they are doing. I ask a lot more questions about how they feel about certain things involving their injury or health. I want the patient to know that I am genuinely concerned and want to help them or if I cannot help them get someone who can.
- P6: By also making sure you ask if they understand what you are demonstrating, or explaining. If an athlete has an injury, make sure they understand what injury they have. Any treatments an athlete needs to perform, make sure you ask if the times work around their schedule.
- P7: How I currently incorporate person centered care into my clinical practice is every day, when an athlete comes into the ATR for treatment I ask them how they are, how's the injury, and how they are handling the injury.
- P8: To incorporate person centered care into my clinical practice I make it my goal to establish an open line communication with patients and then use this to talk to patients and listen to how they want their treatment plans to be individual to themselves.

P9: I currently incorporate person-centered care into my clinical practice by being engaging with the patients. I ask them how they are doing, and ask them about their classes. I try to always call them by name and greet them when they walk into the athletic training room and try to make them feel welcomed. I ask them how they feel the treatment is working and if they feel any progress, I ask them if they like the program they are on and if they feel it is helping. I try to keep an open demeanor so they feel I am approachable.

P10: I incorporate person-centered care by talking to the patient individually. I also take the time to talk to them about their concerns and thoughts on their injury.

3. *How has this learning module affected how you provide care to your patients?*

P1: The learning module has showed me what kind of questions I can ask to get further insight on how patients are coping with their injuries and has taught me that it is okay to ask the patient harder questions.

P2: This learning module has helped me become more compassionate towards my patients. I also learned to have more conversations that isn't just based on an injury.

P3: This learning module has helped me learn that I just don't have to stick to the things that I need to check off of the paper. I also need to think about what the patient is going through and realize how difficult of a situation they are in, and also how I could help them in the long run. Having an injury is hard, so if you find a way into the patients mind and they realize that you are doing everything in your power to make the situation as easy on them as possible, then you will earn their trust much faster.

P4: This has helped me provide better care to patients by realizing the little things that anyone in the healthcare profession does can have a big impact. We need to do what the patient wants because ultimately they are the ones getting treated.

P5: From this module, I have learned that it is really important to ask questions and be involved with your patients. You never know how the patient is feeling or going through unless you sit down and talk to them.

P6: This module has made me learn to put my patients first. I have learned to connect with my patients on a personal level. This module has helped me realize

that when you use person centered care, you are able to build trust with your athletes.

- P7: This learning module affected how I provided care to your patients by giving me more information and insight on different ways an athlete can handle there injury and all the different psychological issue they could go though.
- P8: This learning module has reminded me to listen to my patients and has given me a better understanding of why some athletes do what they do and how to handle and incorporate patient centered care in my clinical practice.
- P9: I have always known I wanted to be a health care provider that was opposite from all the providers I have been seen by. I knew I always wanted my patients to feel dismissed, I always wanted to let the patient know that their concerns are valid. I enjoyed this module because it made me realize that people should be treated with care and I was not just being overly sensitive.
- P10: It has made me realize that I need to be a little more sensitive to the situation at hand so that I can understand the patient's feelings and concerns.

4. *What was the most helpful or insightful portion of this learning module?*

- P1: I think the most helpful part of the learning module was pretending to tell an athlete about their injury and having them react in multiple different ways to show how you have to be delicate talking to a patient and look out for their best interest even when the patient doesn't want to look out for themselves.
- P2: The most helpful thing we did was having student athletes come to a panel to talk about their experience with an injury. This gave me a ton of insight to what athletes go through mentally, socially and physically.
- P3: I think the most helpful thing for me was actually sitting back and listening to what person-centered care is, and how to incorporate it into my own clinical experiences. You don't realize that you are doing something wrong unless you are told. In clinical, we learn how to go through the check list to make sure that we have enough information from the patient to be able to make a diagnosis, but we really aren't taught how to talk to the patients and how to make them feel like their best interest is being put first.

- P4: The most helpful part was hearing people's stories of dealing with those in the health-care profession. Both negative and positive experiences that the athletes talked to helped everyone involved in the study learn and see it from athlete's other than themselves.
- P5: The panel with athletes was the most helpful part of this learning module. As an athlete and a future healthcare professional it is so important to talk to your patients. The athletes that participated all agreed on how they felt after a major injury and as an athletic trainer we have to be able to recognize when our patients are having a difficult time whether it is mentally, physically, or socially.
- P6: I think hearing athletes talk about their experiences after being injured. You were able to almost be in an athlete's shoes even though you hadn't experienced the injury like them. It gave you an insight on how they like to be treated and what they like when they are in the athletic training room. At the beginning of the program you aren't really taught person centered care but after hearing them talk, you learn that they really appreciate when you use it.
- P7: The most helpful portion of this learning module for me was learning about the different personality disorder.
- P8: To me the most helpful portion of this learning module was the athlete discussion panel where athletes came and shared their experiences with injury to the class.
- P9: I enjoyed this module because it made me realize that people should be treated with care and I was not just being overly sensitive. When you deal have been seen by so many insensitive doctors you tend to think that is the norm, but being in this class and learning that the patients' needs should come first and they should not be made to feel like they do not have any say in their treatment is refreshing.
- P10: The most insightful was the student athlete panel that was held for us to communicate with athletes.

5. *What is the most difficult part of using person-centered care?*

- P1: The most difficult part about using person centered care is that you have to spend a lot of time with a single patient but you have multiple patients at the same time who also need care and your attention.
- P2: Implementing in to every evaluation for a patient has been difficult. Another thing is having to feel sympathetic towards a patient when you don't do well with emotions
- P3: I think the most difficult part of using person-centered care is to actually care about the athlete personally, a lot of times we just get caught up in their injury and getting them back on the field we tend to forget the whole point of them coming in to us. Some athletes just want someone to talk to and when we run them off they might not have anyone else to go talk to.
- P4: The most difficult part was actually implementing what we learned and applying it in the athletic training room every day. Sometimes it's hard to remember things that you should be making sure that you need to double check with the patient and let them know what's going on and give them options for what to do instead of just going through what we are trained to do clinically.
- P5: The most difficult part of person-centered care to me is having conversations with a patient that may seem too personally. For example, if a patient is showing signs of anorexia, as an athletic trainer we have to ask questions and if they are dealing with an eating disorder we have to find someone who can help him or her. We cannot be afraid to ask our patients questions.
- P6: I think always remembering to use person centered care even when you are having a bad day is the hardest part. Being able to leave everything out of the athletic training room will take lots of practice but is possible.
- P7: The most difficult part of using person centered care is taking the time during treatment hours to listen to your athletes when you might have a whole time in the ATR at once.
- P8: The most difficult part of person centered care is putting aside how you feel on certain things too give the care a patient wants to them.

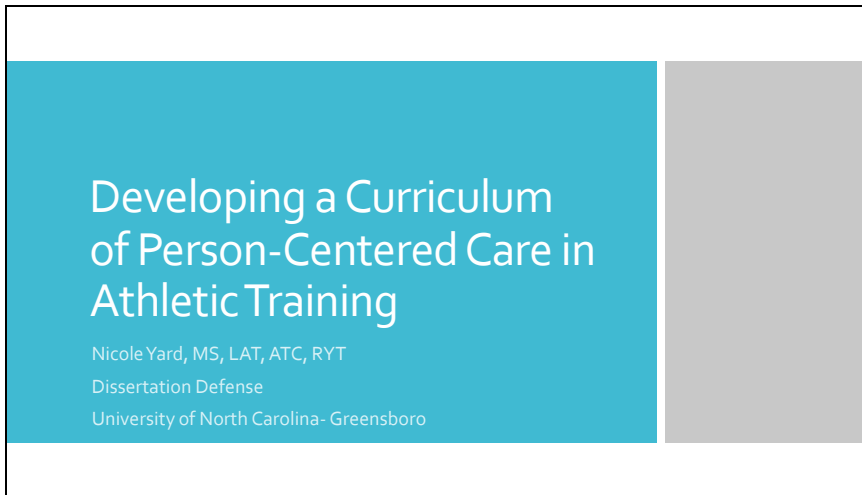
- P9: I think the negative way I was made to feel by health care providers will allow me to not make anyone feel the way I felt. I think my personality and my care for people will make it very easy for me to use patient-centered care.
- P10: The most difficult part is being able to manage your time to where you can give each patient the personal communication and respect they deserve.
6. *What suggestions do you have for improving the use of person-centered care in athletic training? Any additional comments or suggestions*
- P1: To better athletic training in person centered care I think it would be beneficial to have athletic trainers sit and talk to athletes about their experiences with them so they can hear how the athletes have been affected by them whether it be negative or positive so they know what they're doing and how to improve their care overall.
- P2: I think the biggest things athletic trainers do is we don't always listen to our patient. We are very good at figuring out what the issue is but we don't listen to what else is effecting the patient. So I suggest we listen more and not always jump to an injury when there might be a more serious problem going on. I also suggest that athletic trainers don't get over involved in situations and don't input personal feelings.
- P3: I think the main thing that will help is the athletic trainer taking time to talk to the athlete every day, because if you make time for them every day they will being to build trust and confidence in you.
- P4: I thought it was a great study and I learned a lot of things from it that wouldn't have been pointed out to me otherwise.
- P5: Athletic trainers are great at understanding and taking care of each patient's physical health, but many do not ask questions about the patient's mental or social health. As an AT we have to be aware because you never know how the athletic is dealing with their injury or injuries.
- P6: I think some suggestions I have are to start person centered care at the beginning of ANY athletic training program. A suggestion I have is to make it aware that it is not always trying to get everyone out as fast as they can. Everyone should be taught that you should take the time to learn your patient and treat your patient with respect and care for them.

- P7: The suggestions I have for improving the use of person centered care in athletic training is to have more one on one treatment with our athletes to talked with them about how they are handling there injury and if anything is wrong.
- P8: I think that to improve person centered care in athletic training is to continue to remind the profession that we should listen to and respect the decisions of patients. There also has to be a 'willing to change' attitude from the profession.
- P9: Suggestions I have for improving the use of person-centered care in athletic training are: for the athletic trainers to make the patients feel welcome no matter how long it has been since the patient has last been into the training room. I think the AT should at least ask the patient how they have been before they jump on his or her case about not coming in. I also think the ATs should not treat patients differently or brush some athletics off but show their undivided attention to other patients, to where it is noticeable to the patients they brush off. I also feel ATs should keep their emotions under control. I don't feel that the patients should have to be concerned or have to wonder about what mood their trainer is going to be in when they go in to see them. I know that everyone has their bad days but the ATs need to find other avenues to deal with their feelings and put their emotions to the side when they are dealing with patients.
- P10: When learning how to complete an evaluation, students should learn to value quality over efficiency. Students need to know how to communicate in a sensitive way.

APPENDIX I

DISSEMINATION PRESENTATION

Presented at the Methodist University Research Symposium.



Developing a Curriculum
of Person-Centered Care in
Athletic Training

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Background

- Patient-centered care is considered the gold standard of care (Scholl, Zill, Harter & Dirmaier, 2014; Sidani & Fox, 2014; Cheng et al., 2016)
- One of six goals for quality care set forth by the Institute of Medicine (IOM) and "encompasses qualities of compassion, empathy, and responsiveness to the needs, values, and expressed preferences of the individual patient (p.48, IOM, 2001)."
- Patient-centered vs person-centered care
- Several models of person-centered care (Li & Porock, 2014; Scholl et al., 2014; Sidani & Fox, 2014)
- World Health Organization's (WHO) International Classification of Functioning, Disability and Health (ICF) disablement model (NATA, 2012)

Purpose

- The purpose of this study is to evaluate the effectiveness of a four-part learning module on athletic training students understanding and use of person-centered care in athletic training. Research questions and hypotheses are as follows:
 - 1. How does the learning module affect athletic training students' understanding and perceived use of person-centered care in athletic training settings?
 - 2. How does the learning module affect athletic training students' use of person-centered care in their clinical education settings?

Methods: Participants

- Athletic training students from a Commission on Accreditation for Athletic Training Education (CAATE) accredited athletic training program.
- Selected from a psychosocial aspects of healthcare course taught by the primary instructor.
- All 11 students enrolled in the course agreed to participate in the study.
- Each participant completed an informed consent form prior to beginning the study.
- Students in this course had completed over 150 hours of clinical education, completed a course on lower extremity evaluation and were at the time of the study enrolled in a course on upper extremity evaluation.

Methods: Measures

Clinical Evaluation Observation

- Assessed each participant's use of PCC in a clinical evaluation.
- Participants were marked yes or no for performing each item of PCC.
- Divided into three sections:
 - Holistic care with 9 items (e.g. asks about social functioning)
 - Collaborative care with 6 items (e.g. involves patient in decision making)
 - Responsive care with 6 items (e.g. provides flexible, personalized care).
- Participants were observed performing a clinical evaluation on a model patient before and after the study.

Pre-Post Survey

- Adapted from Sidani et.al.'s (2014) measure of healthcare providers' implementation of patient-centered care.
- Asked participants to rate their perceived use of person-centered care
- Consisted of three sections
 - Holistic care, 11 questions
 - Collaborative care, 13 questions
 - Responsive care, 11 questions)
- Statements rated on a 5-point scale from never to always.

Methods: Procedures

- Pilot Study
 - All learning materials and measures were piloted on junior and senior athletic training students who had already participated in a psychosocial aspects of healthcare course.
 - Based on results and feedback from participants in the pilot study, changes were made to the curriculum of the learning module
- Study Schedule

	Week 1	Week 2	Week 3	Week 4
Class 1	PowerPoint presentation: Clinical Evaluation	PowerPoint Presentation: Treatment/Rehabilitation Plan	PowerPoint presentation: Interprofessional referral	PowerPoint Presentation: Return to Participation
Class 2	Building a therapeutic alliance discussion	Student-athlete panel discussion	Role playing with student-athletes	Group discussion of In Shock
Homework	In Shock Reading questions Section 1	In Shock Reading questions Section 2	In Shock Reading questions Section 3	In Shock Reading questions Section 4

Methods: Learning Modules

Clinical Evaluation	Focused on the clinical evaluation process. Topics included: a more comprehensive evaluation process to assess a patient's overall functioning physically, psychologically, and socially, discussion of the differences between the biomedical model of care and a person-centered care model of care, various models of person-centered care across healthcare disciplines and building a therapeutic alliance with patients.
Treatment/Rehabilitation	Focused the treatment and rehabilitation plan. Topics included: the World Health Organization's (WHO) International Classification of Functioning, Disability and Health (ICF) model (WHO ICF disablement model), communication between the patient and provider and fostering a collaborative therapeutic alliance when developing a comprehensive treatment plan.
Interprofessional Referral	Focused on the referral process. Topics included: interprofessional communication and coordination of care on behalf of the patient and using informatics to support communication and continuity of care.
Return to Participation	Focused on discharge and return to participation. Topics included: preparing the patient, both physically and psychologically, for return to play and discussed patient self-care and management following discharge from medical care.

Methods: Procedures

- Student-Athlete Injury Experience Panel
 - Four student-athletes shared their experience as an injured athlete
 - Discussion questions and interactive panel
- *In Shock* by Dr. Rana Awdish
 - Dr. Awdish writes about her experience as a critically ill patient and as a physician.
 - Focuses on person-centered care and presents a first-hand account of what it means to be a patient and a person within the healthcare system.
 - Looks at how healthcare providers can affect the health and wellbeing of their patients through their interactions with them.

Results: Survey

- Results of the paired t-tests on pre-post survey items demonstrated a significant improvement in participant's perceived use of person-centered care in their clinical practice.
- Participants showed significant improvement in their use of person-centered care in 7/11 categories of holistic care, 11/13 categories in collaborative care and 9/11 categories in responsive care

	Pre-intervention	Post-intervention	t	Sig. (2-tailed)
Holistic Care Average	3.05 ± .62	4.0 ± .78	-4.39	0.001*
Collaborative Care Average	3.25 ± .66	4.47 ± .47	-6.38	0.001*
Responsive Care Average	3.22 ± .80	4.37 ± .52	-4.41	0.001*

Average mean for each category. (n=10, df=9, α=.05, *P<.001)

Results: Clinical Evaluation Observation

- Results of the paired t-tests on the clinical evaluation observation demonstrated a significant improvement in participant's use of person-centered care in their clinical practice.

	Pre-intervention	Post-intervention	Mean	Std. Deviation	t	sig
Holistic Care	4.5 ± .71	6 ± 1.15	-1.5	1.58	-3	0.01*
Collaborative Care	.5 ± .71	3.8 ± 2.04	-3.3	1.83	-5.71	0.001*
Responsive Care	2.8 ± 1.4	4.9 ± 1.73	-2.1	2.18	-3.04	0.01*

Mean scores represent the percentage of correct responses (n=10, df=9, α=.05, *P<.001)

Discussion

- Improved perceived use and use of person-centered care in clinical settings
- Consistent with current literature incorporating person-centered care into an educational curriculum (Conrad, Cavanaugh & Konrad (2012; Chen et al., 2016; Ben Natan & Hockman, 2017)
- Limitations
 - Small sample
 - No control group

Future Directions

- Incorporate person-centered care throughout the athletic training education curriculum
- Develop new educational materials to implement in various athletic training courses
- Train clinical preceptors to model person-centered care
- More research on person-centered care in athletic training

Biomedical Clinical Evaluation

- S: Pt's knee buckled while she was trying to change directions during a drill. Pt complained of pain and stiffness in R knee. Pt localized pain at lateral tibial plateau region. She denied any neurological symptoms.
- O: No deformity or discoloration. Mild swelling around general patellar region. Knee flexion about 100 deg. w/ P! Knee extension about 20 deg. limited due to P! and stiffness. Negative Lachman. Positive McMurray and Thessley.
- A: Possible lateral meniscus tear.
- P: Pt has been pulled from activity. Pt was educated on RICE method as well as use of ibuprofen. She was also given crutches and ACE wrap. Pt will follow up with her AT on Monday.

Person-Centered Clinical Evaluation

- S: Pt came in today following her game yesterday. She said she tried to do warmups and go in the game, but had to come back out. She said she was too stiff to move and couldn't do anything. She had been given crutches to use, but didn't want them. Pt reports that it is painful to bear weight through her leg and to keep it fully straight, though it can be passively straightened. Says there is no longer a sharp pain, but more of a dull ache. For her initial injury, she said she faked to go left and turned to go right, but her foot got caught and her leg didn't follow. She says there was pain, but swelling didn't appear until later that night. Pt has a history of patellar dislocation on both knees. Says this isn't as bad as that, so she doesn't think it is that bad. She did a lot of rehab following those injuries and has very strong thigh muscles. de has been icing and elevating since Thursday.
- O: Today she presents with moderate swelling over her right knee. Pain with medial translation of the patella. Negative anterior drawer, but she has a lot of guarding in her quad, so she had very little movement of the tibia. TTP over MCL and pain noted with valgus test. Pt reported that she felt it shift, though outwardly there was less visible laxity, most likely due to guarding. Mild tenderness over LCL, varus test normal. McMurrays, was painful with end range knee flexion, with noticeable excessive internal rotation of the tibia at greater than 90 degrees of flexion. It felt like her knee was shifting with no end feel. No noted popping or clicking with McMurrays.
- A: Possible MCL, or meniscus.
- P: Refer for further evaluation. Not sure of the cause of the excessive internal tibial rotation, but may be due to a hidden ACL injury. Had a conversation with pt about using crutches. We came to an agreement that she will use one crutch to aid ambulation, since she walks with a limp, and allow the knee to heal and potentially decrease muscle guarding. She was given and double hinge knee brace to wear and ACE wrap to wear at night and when she is not active. She is hopeful to return to participation, but was advised that this may not be a fast injury, it may take a week or more to heal depending on what the final diagnosis shows. She will return tomorrow for further care.

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